Rockhopper II Series printer

User's Guide

MUTOH EUROPE N.V.

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Dear Customer,

The Rockhopper II Eco-Solvent Plus printer series are offered in three different models, i.e. 50.11" (1273 mm), 65.07" (1651 mm) and 88.18" (2280 mm). Printing widths are respectively 1263 mm, 1641 mm and 2250 mm.

Equipped with a new set of 360 nozzles/colour piezo-electric drop-on-demand inkjet heads, the Rockhopper II combines high speed and high quality printing, with top production speeds of more than 30 m² per hour. Print resolutions offered are 360 x 360 dpi, 720 x 360 dpi, 720 x 720 dpi, 1440 x 720 dpi and 1440 x 1440 dpi.

Incorporating 8 colour channels, the Rockhopper II series printers can be set up for both 6 and 4 colour printing. For photo tone output printing, Mutoh offers a as standard 6-colour (CMYK, light cyan & light magenta) Eco-Solvent Plus ink set. For high speed, the user can load 2 x 4 CMYK ink sets, offering 440 ml ink autonomy per colour and the possibility to double the machine's speed. Ink comes in 220 ml smart-chip ink cassettes.

Rockhopper II application possibilities encompass outdoor poster printing, banners, long-term backlit signage, building and construction announcements, vehicle graphics, durable indoor graphics, POS displays, … Apart from outdoor applications, Rockhopper II printers are also an excellent choice for durable photo-realistic prints for indoors.

The Rockhopper II is an easy to use printer for your outdoor and indoor print jobs.

Happy printing!

Mutoh Europe N.V.

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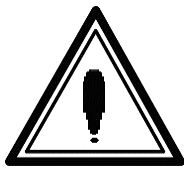
1. SAFETY INSTRUCTIONS

1.1. INTRODUCTION

This chapter explains the meaning of safety terms for personnel who operate this equipment, important safety instructions, and the positions of the warning labels.



Important :

- **Be sure to follow all instructions and warnings in this manual when using the equipment.**

1.2. WARNINGS, CAUTIONS AND NOTES

Safety terms in this manual and the contents of warning labels attached to the printer are categorized into the following three types depending on the degree of risk (or the scale of accident).
Read the following explanations carefully and follow the instructions in this manual.

Safety terms	Details
Important	Must be followed carefully to avoid death or serious bodily injury
Caution	Must be observed to avoid bodily injury (moderately or lightly) or damage to your equipment
Notes	Contains important information and useful tips on the operation of your printer

1.3. IMPORTANT SAFETY INSTRUCTIONS

General safety instructions that must be observed to use the equipment safely are explained below.

- Do not place the printer in the following areas. Doing so may result in the printer tipping or falling over and causing injury.
  - Unstable surfaces
  - Angled place
  - Areas subject to vibration by other equipment
- Do not stand on or place heavy objects on your printer. Doing so may result in the printer tipping or falling over and causing injury.
- Do not cover the ventilation hole of your printer with cloth, such as a blanket or table cloth. Doing so could obstruct ventilation and cause fire.
- Do not place the printer in humid and dusty areas. Doing so may result in electrical shock or fire.
- Do not use a damaged power cable. Doing so may result in electrical shock.
- Do not attempt to plug in electrical plugs with wet hands. Doing so may result in electrical shock.

- Do not connect earth cables in the following areas.
  - Gas pipes → Doing so may cause fire or an explosion.
  - Earth terminals for telephone line or lightening rod → Doing so may cause a large flow of voltage if lightening occurs.
  - Water pipes or faucets → If there is a plastic part in the pipe, the earth will not work properly.

- Do not insert or drop metal or inflammable objects into openings, such as ventilation outlets. Doing so may result in electrical shock and fire.

- Stop using your printer if a liquid is spilled into it. This may cause electrical shock or fire. Turn the printer off as soon as possible, unplug the power cord, and contact your local MUTOH dealer.

- Be sure to use the attached cable. Otherwise, electrical shock or fire may occur.

- Be sure to use the specified voltage (AC 100 V to 120V, or AC 220V to 240V). Otherwise, electrical shock or fire may occur.

- Use electricity directly from a power outlet (AC 100 V to 120V, or AC 220V to 240V). Do not put many loads on one electrical output. Otherwise, heat may be generated and cause fire.

- Be sure to use an outlet with an earth terminal and use the terminal correctly. Otherwise, electrical shock or fire may occur.

- Follow the instructions below when handling the power cable.
  - Do not modify the cable.
  - Do not put heavy objects on the cable.
  - Do not bend, twist or pull the cable.
  - Do not wire the cable near equipment that generates heat.

- Follow the instructions below when handling the power plug. Otherwise, fire may occur.
  - Wipe away dust and any other residue before inserting the plug.
  - Ensure that the plug is firmly inserted as far as it will go.

- When handling the foot switch, be aware of the following:
  - Do not place anything heavy on the foot switch.
  - Do not bend the cable of the foot switch with force and do not pull.
  - Do not place the foot switch near thermal devices.

- When handling ink cassettes, be careful that ink does not get in your eyes or on your skin. However, if this happens, flush immediately with water. Otherwise, your eyes may become congested or inflamed slightly. If you feel discomfort, consult a doctor immediately.

- Do not disassemble ink cassettes. Otherwise, ink may get in your eyes or on your skin.

- Be careful not to pinch your fingers when opening and closing the cover of the ink compartment.

- Be careful not to pinch your fingers when opening and closing the front cover.

- Follow the instructions below when connecting the network interface cable. Otherwise, electrical shock or fire may occur.
  - Do not touch the connector.
  - Do not connect the network cable connector that is not the same specification to the interface board.

- When cutting the roll media, be careful of the following. Incorrect handling can result in injury to the hands and fingers from the razor blade.
  - When holding the media, do not place fingers over the media cut groove.
  - Move the razor blade slowly along the media cutting groove.

- Do not use thinner, benzene, alcohol or other active agents. Doing so may result in damage or paint peeling from the casing.
- Be careful not to spill water inside the printer. Doing so may result in a short circuit.
- Be careful not to touch the heaters during or after operation. Doing so may result in burns.
- Only use Eco-Solvent Plus ink and appropriate cleaning liquid. Using other ink (e.g. dye or pigment) will cause permanent damage to the printer.
- Never open the covers fixed with screws. Doing so may result in electrical shock or a malfunctioning in the printer.
- Do not touch the cutter blade. Doing so may result in bodily injury.
- Do not cut hard objects or drop the cutter. Doing so may damage or chip the cutter blade.
- Do not bend or pull the waste fluid tube. Doing so may cause that the waste fluid will leak out and malfunction in the product.
- Do not touch the cleaning wiper or the head cap unit while cleaning the cleaning wiper. Doing so may result in poor head cleaning because of oil on your hands.
- Do not tilt the printer, stand it against a wall or turn it upside down. Doing so may cause ink to leak inside the printer. Movement after transport is also not covered by the warranty.
- When installing options, do not touch the elements on the circuit board. The elements on the boards can be very hot and can cause burns.
- Have four or more people unpack and assemble the printer.
- When lifting the printer out of the packing box, be sure to remove the vinyl cover first, and then grab the holding grips on the sides of the printer. Lifting the printer with the vinyl cover on may cause your hands to slip and drop or damage the printer.
- Have two or more people transport the printer.
- Ensure that the plug has been disconnected from the power socket when it is not to be used for a long time.
- Earth wires must be connected to wires or terminals that fulfill the conditions below.
  - Earth terminals of power sockets
  - Earth wires with copper morsel that is at least 650 mm under the ground
- Earth wires must be connected to wires or terminals that fulfill the conditions below.
- When setting roll media, place it on top of a desk or other flat surface. Setting roll media with the scroller standing up may damage them.
- Keep the printer horizontal during transportation.
- Be sure to do the following before attaching options.
  - Turn the printer off.
  - Unplug the power cord from the socket.
  - Unplug cables connected to the printer. Otherwise, damage to the printer or your computer may occur.
  - Remove electrostatic charge from your clothes and body by touching the metal parts of the printer.
  - Electronic components such as the memory may malfunction if exposed to an electrostatic charge.

1.4. WARNING LABELS

The handling, attachment locations, and types of warning labels are explained below.
Warning labels are attached on areas which require attention. Read and understand the positions and contents thoroughly before performing your work.

1.4.1. Handling the warning labels

Be sure to note the following when handling the labels.

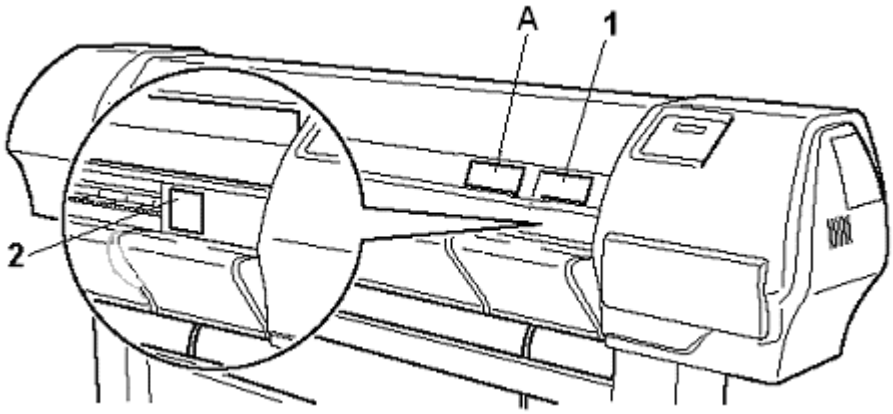
Notes :

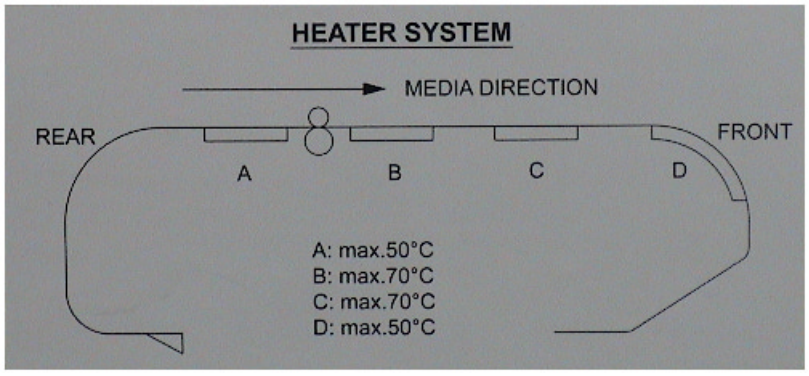
- Make sure that all labels can be recognized. If text or illustrations cannot be seen clearly, either clean or replace the label.
- When cleaning labels, use a cloth with water or neutral detergent. Do not use a solvent or gasoline.
- If a warning label is damaged, lost or cannot be recognized, replace the label. When replacing warning labels, contact your local MUTOH dealer.

1.4.2. Locations and types of warning labels

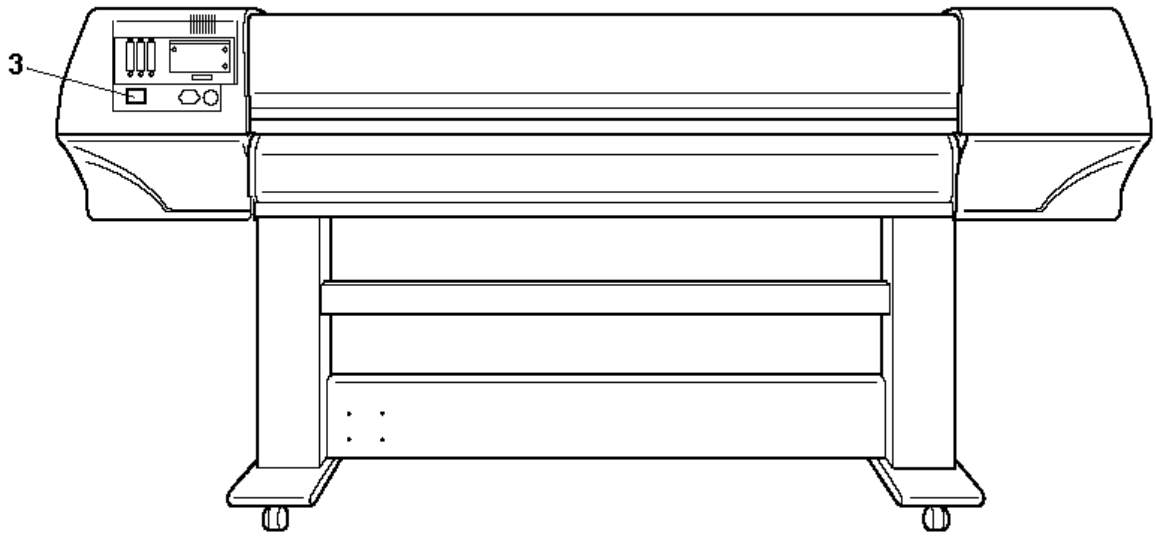
The locations of warning labels are shown below.

1.4.2.1. Location and types of warning labels on front part.



No.	Type
1	**CAUTION VORSICHT ATTENTION** > Do not open the front cover or touch the media during printing.This will result in poor image quality. > If no printing is to be done for some time, remove the media and put the hold lever in the up position. Otherwise the media may lift up and become wrinkled and you will not be able to obtain good printing results. > Öffnen Sie wärhend des Druckens die Frontabdeckung nicht und berühren Sie das Druckmaterial nicht. > Wenn Sie wärhend längere Zeit den Drucker nicht benutzen, nehmen Sie das Druckmaterial heraus und stellen Sie den Halthebel in die obersten Position. Sonst kann sich das Druckmaterial aufheben und zerknittern und demzufolge erzielen Sie keine gute Druckergebnisse mehr. > N'ouvrez pas le couvercle quand l'imprimante est en train d'imprimer. Ne touchez pas non plus le papier afin d'éviter que la qualité s'aggrave. > Si vous ne comptez pas imprimer pendant un certain temps, retirez le papier et mettez le levier en position levée. Sinon, le support risque de se soulever et de se froisser et vous n'obtiendrez pas de bonne qualité d'impression.
2	**CAUTION VORSICHT ATTENTION** > To avoid injury, keep fingers away from the cutter blade. > Um Verletzungen zu vermeiden, berürhen Sie das Schneidemesser nicht. > Ne touchez pas la lame afin d'éviter des blessures. > To avoid injury, do not touch the edge of the steel belt. > Um Verletzungen zu vermeiden, berühren Sie den Stahl-Antriebsriemen nicht . > Ne touchez pas la courroie de transmission en acier afin d'éviter des blessures.
A	Only onto the Rockhopper II 4H printer 

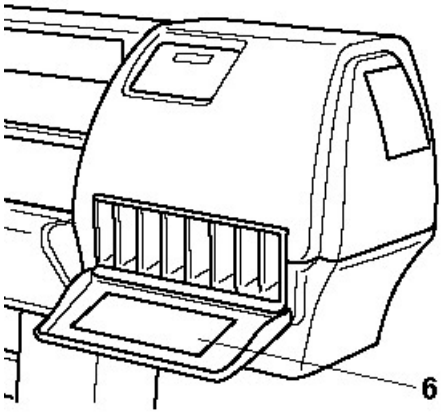
1.4.2.2. Location and types of warning labels on back part.

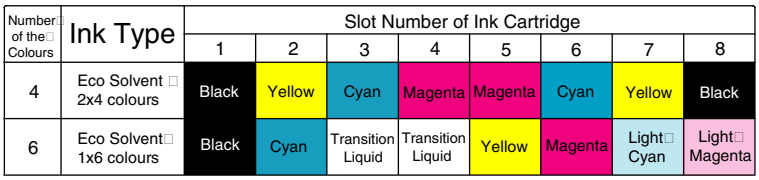
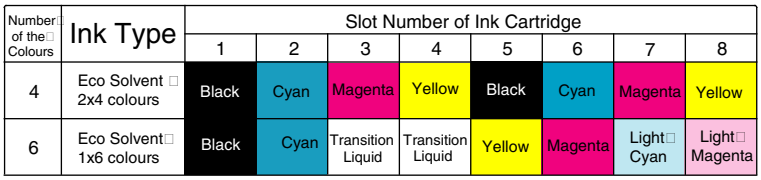


No.	Type
3	**CAUTION** THIS UNIT HAS TWO POWER SUPPLY CORDS, WHEN WiNDING□ UNIT IS PROVIDED. TO REDUCE THE RISK OF ELECTRICAL□ SHOCK, DISCONNECT ALL POWER SUPPLY CORDS □ BEFORE SERVICING.

1.5. OPERATION PROCEDURE LABELS

The handling, attachment locations and types of operation procedure labels are explained below.
Your printer has labels, which explain the operations that require particular care. Read and understand the locations and contents of these labels thoroughly before performing your work.

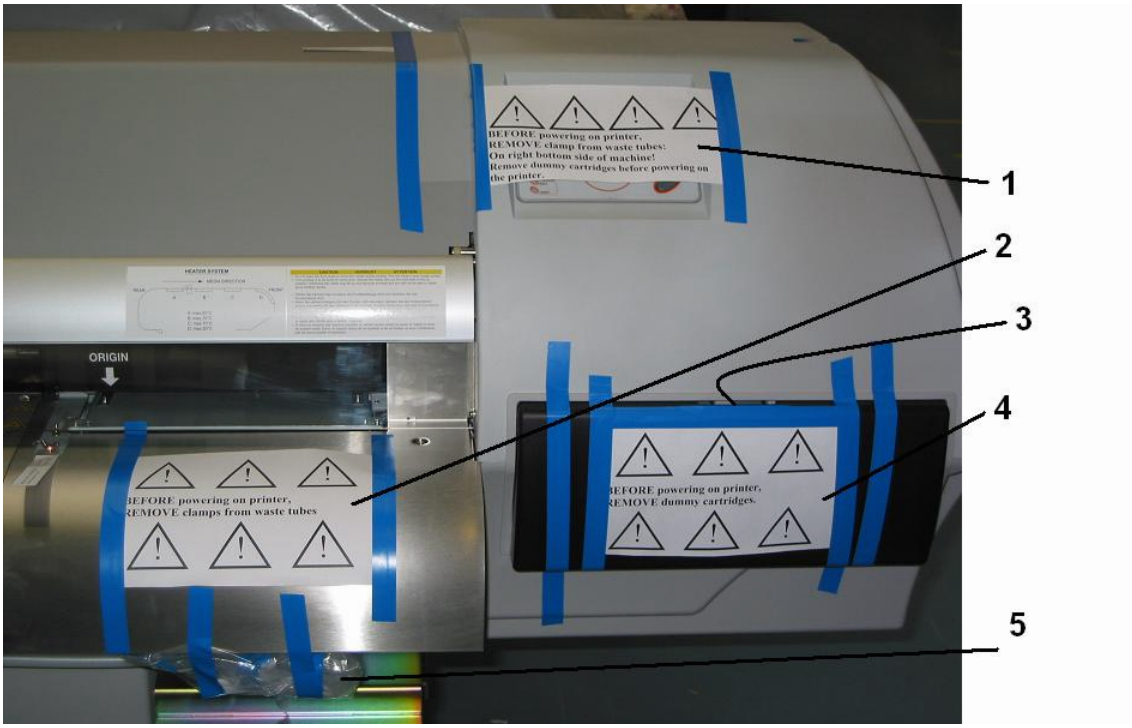


No.	Type	Refer to
6		→ Installing ink cassettes Please note that ink cassettes order is different for 87" printers versus 50" and 64" printers. (Label 50" and 64" printer)
6		→ Installing ink cassettes Please note that ink cassettes order is different for 87" printers versus 50" and 64" printers. (Label 87" printer)

Number of the Colours
Ink Type
Slot Number of Ink Cartridge
1 2 3 4 5 6 7 8
4
Eco Solvent 2x4 colours
Black Yellow Cyan Magenta Magenta Cyan Yellow Black
6
Eco Solvent 1x6 colours
Black Cyan Transition Liquid Transition Liquid Yellow Magenta Light Cyan Light Magenta

Number of the Colours
Ink Type
Slot Number of Ink Cartridge
1 2 3 4 5 6 7 8
4
Eco Solvent 2x4 colours
Black Cyan Magenta Yellow Black Cyan Magenta Yellow
6
Eco Solvent 1x6 colours
Black Cyan Transition Liquid Transition Liquid Yellow Magenta Light Cyan Light Magenta

1.6 LABELS IN FUNCTION OF TRANSPORTATION



Nr.	Description
1	BEFORE powering on printer, REMOVE clamp from waste tubes: On right bottom side of machine! Remove dummy cassettes before powering on the printer.
2	BEFORE powering on printer; REMOVE clamps from waste tubes
3	You can also find a label on each of the 8 dummy cassettes: Dummy cassette, please remove before powering on the printer.
4	BEFORE powering on printer, REMOVE dummy cassettes.
5	Plastic bag with the 8 waste tubes and clamps

2. PRODUCT OVERVIEW

2.1. INTRODUCTION

This chapter explains the features, part names, and functions of the printer.

2.2. FEATURES

The features of the printer are explained below.

(1) High speed output

3 models feature new print heads and achieve high speed printing.
They also offer printing widths up to 1263 mm in Rockhopper II-50 (50 inch), 1643mm in Rockhopper II-64 (64 inch) and 2230 mm in Rockhopper II-87 (87 inch).

(2) Wide variety of compatible media

Adjustable head height can be adapted to various media thickness from 0.08 up to 1.1 mm.

(3) Vibrant Colour Reproduction

To reproduce sharp and vivid colour, 4 or 6 ink colours are used for printing. 220ml of large capacity Eco-Solvent Plus cassette is equipped with an IC chip, which can automatically detect the ink quantity, significantly improving productivity.

(4) Effective usage of media

A JOG feature is provided allowing the user to set the printing position. Because printing can be performed on media on which there has already been printed, excess space can be used effectively.

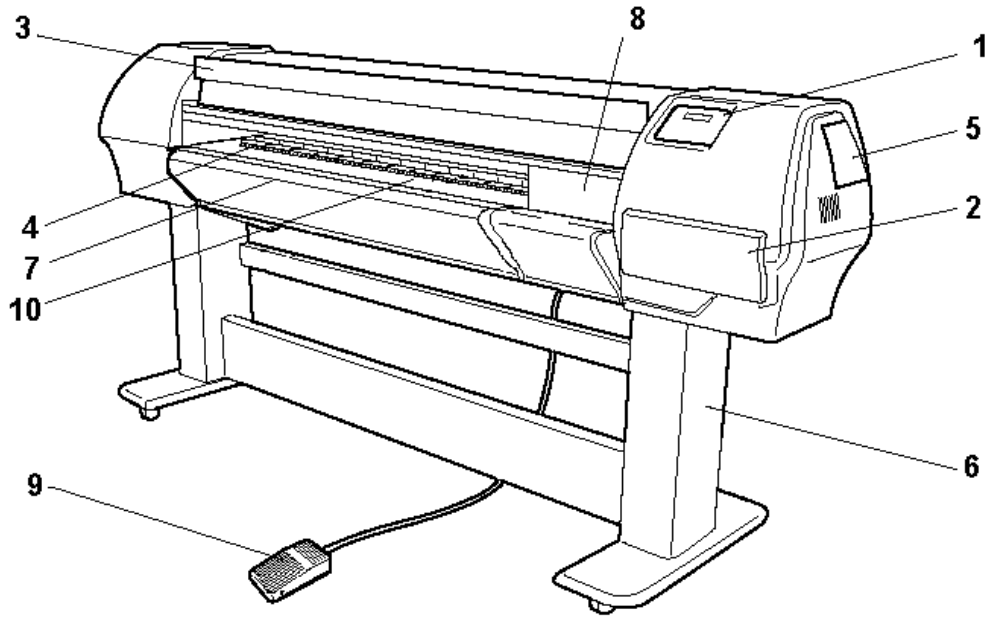
(5) RIP

Software Starter Pack included in-the-box. (To be defined with the order.)

2.3. PART NAMES AND FUNCTIONS

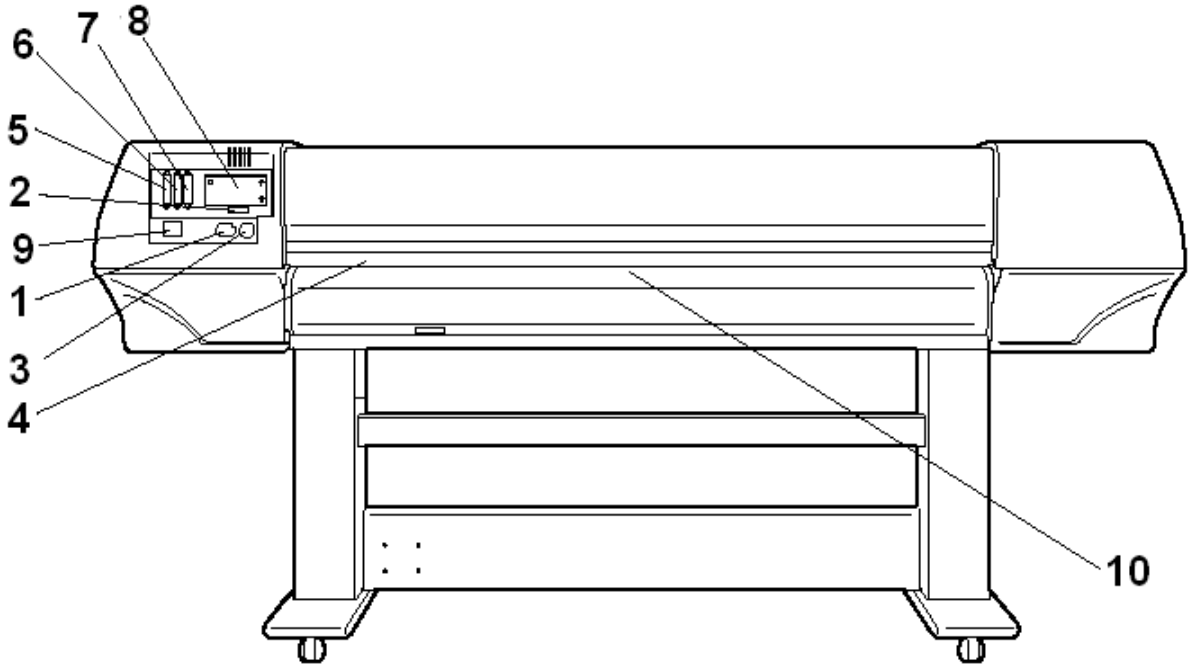
Part names and functions are explained below.

2.3.1. Front



No.	Name	Function
1	Operation panel	This panel is used to set operational conditions, the status of the printer and other functions.
2	Ink compartment	This is the place for installing ink cassettes.
3	Front cover	This cover keeps the operator safe from the drive parts of the printer while it is operating. Only open and/or close the cover to perform following operations: ➢ Media setting and replacement ➢ Cutter blade replacement ➢ Cleaning the cleaning wiper ➢ In case of media jam.
4	Pressure rollers	This roller is used to press the media from above and keep it flat when printing.
5	Maintenance cover	This protects users from electric shocks caused by touching the internal electrical parts. The cover is opened when expansion memory (optional) has to be installed, and is closed for normal use.
6	Stand	This stand is used to install the printer on a surface flat floor. The following options are available for installation. ➢ Motorized roll-up/roll-off system ➢ Take-up system + scroller receiver
7	Media cut groove	Only onto the Rockhopper II 4H printer! Used to cut the media straight when it is cut manually.
8	Cassette cover	Only onto the Rockhopper II printer! This is a cover to protect the user from the internal components of the unit. This is opened during following operation : ➢ When cleaning the cleaning wiper
9	Foot switch	This switch is used to raise and lower the pressure rollers.
10	Paper Guide	Support the media during printing In the Rockhopper II it houses post-heater (dryer). In the Rockhopper II 4H it houses the fixer, post-fixer and dryer.

2.3.2. Back



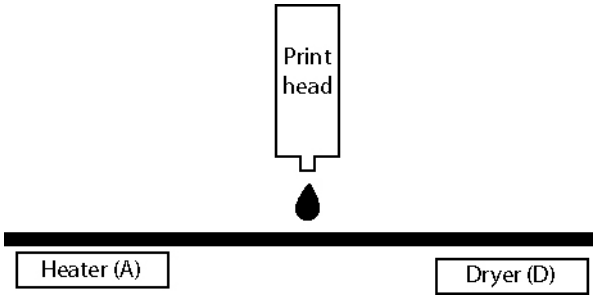
No.	Name	Function
1	AC inlet	This is the inlet interface to which the power plug is connected.
2	Interface connector	This is the connector to which the interface cable is connected.
3	Foot switch connector	This is the connector to which the foot switch cable is attached.
4	Insertion slot	This is the slot for inserting media when loading it.
5	Interface slot 1	The network interface board attaches here.
6	Interface slot 2	This is not used for this printer. Close it with the cover.
7	Interface slot 3	
8	Hard disk slot	The hard disk attaches here. When not using a hard disk, keep the cover closed.
9	Nameplate rating	The type, name, serial number, rating and other details of the printer are labelled here.
10	Rear Heater	Supports the media during printing and houses the pre-heaters.

2.3.3. Position and function of the heating elements

Notes :

- To verify if your printer is equipped with 2 or 4 heaters, please refer to the chapter "Appendix".

2.3.3.1. Rockhopper II 2 heater printers



Heater element	Temperature	Function
Pre-heater (Heater A)	20 – 50°C	→ Open the pores to make the media more receptive for eco-solvent plus ink.
Dryer (Heater D)	20 – 50°C	→ Applying heating immediately after printing improves ink/media anchorage. → The dryer helps to make the media touch-dry before it reaches the automatic take-up system.

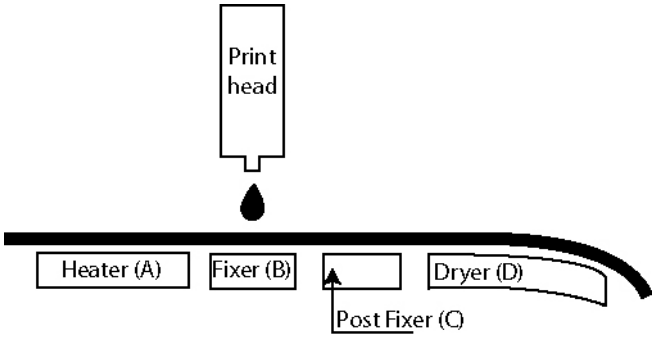
There have been a number of requests from the field, asking the heaters to be on by default for a few user settings. This has now been implemented as follows:

1) For user 1 and user 8 default settings are as follows:
   a. Pre heater A: 50°C
   b. Dryer D: 50°C
2) For users 2 ➔ 7, by default the heaters are still OFF.

Notes :

- Please note some RIP software do not allow selection of the user from software side. In some cases, however, they do automatically activate user 8**.**

2.3.3.2. Rockhopper II 4 heater printers



Heater element	Temperature	Function
Pre-heater (Heater A)	20 – 50°C	→ Open the pores to make the media more receptive for eco-solvent plus ink.
Fixer (Heater B)	20 – 70°C	→ To establish optimum fixation onto the media (coated and uncoated). → Optimizes the dot gain control.
Post-Fixer (Heater C)	20 – 70°C	→ The post-fixer finalizes the fixation process and helps to make the prints touch-dry.
Dryer (Heater D)	20 – 50°C	→ The dryer completes the drying for compatibility with the take-up in combination with higher output speeds. → Stickiness of printed banner materials is improved.

There have been a number of requests from the field, asking the heaters to be on by default for a few user settings. This has now been implemented as follows:

1) For user 1 and user 8 default settings are as follows:
   a. Pre heater A: 50°C
   b. Fixer B: 55°C
   c. Post Fixer C: 50°C
   d. Dryer D: 50°C
2) For users 2 ➔ 7, by default the heaters are still OFF.

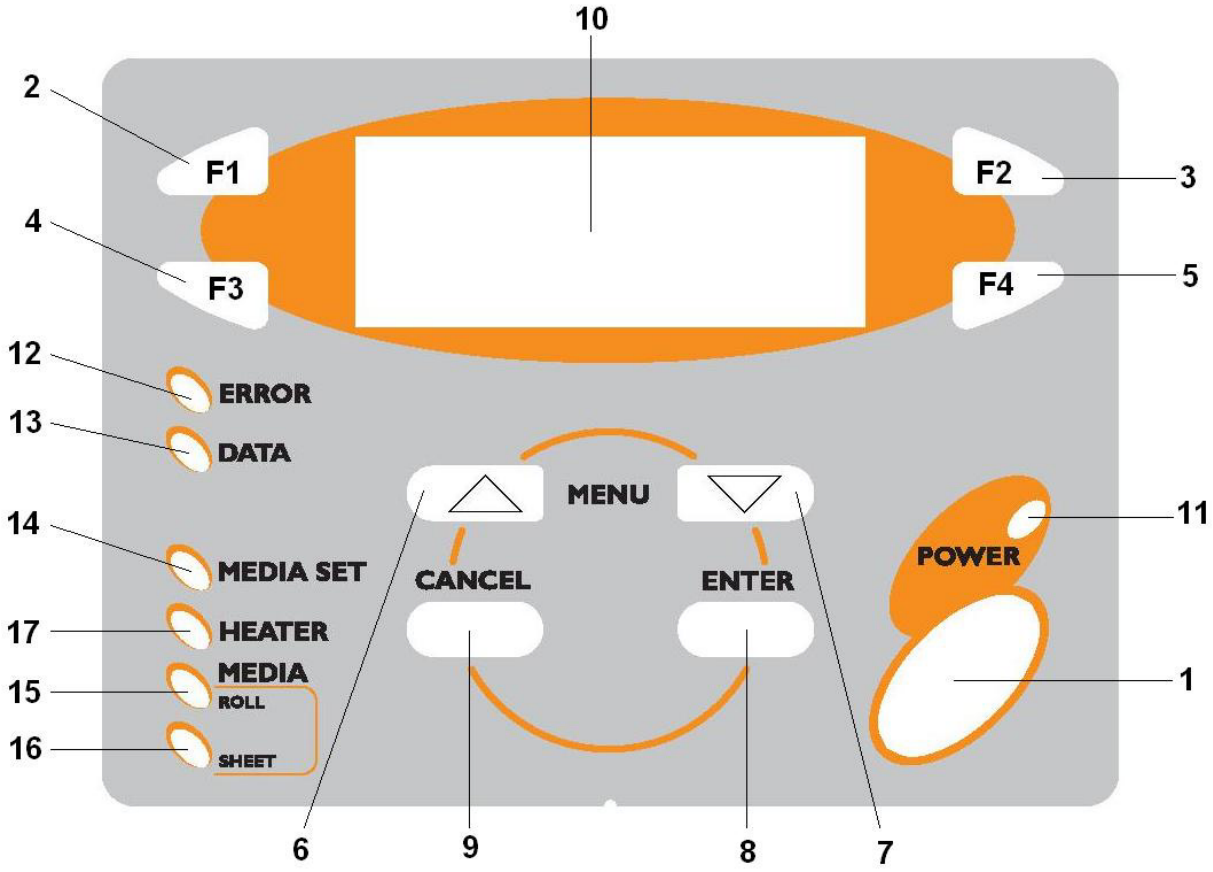
Notes :

- Please note some RIP software do not allow selection of the user from software side. In some cases, however, they do automatically activate user 8**.**

2.3.4. Operation panel

The operation panel is used to set operational conditions, display the status of the printer, and set other functions.

The names and functions of the operation keys and status lamps are explained below.



(1) Operation keys

No.	Name	Normal	Setup menu display
1	[POWER] key	Turns the printer on and off.	Turns the printer on and off.
2	[F1] key	Executes the function assigned to F1.	Executes the function assigned to F1.
3	[F2] key	Executes the function assigned to F2.	Executes the function assigned to F2.
4	[F3] key	Executes the function assigned to F3.	Executes the function assigned to F3.
5	[F4] key	Executes the function assigned to F4.	Executes the function assigned to F4.
6	[MENU ↑] key	Changes the LCD monitor display to the setup menu status.	Changes the menu in reverse order.
7	[MENU ↓] key	Changes the LCD monitor display to setup menu status.	Changes the menu in forward order.
8	[ENTER] key	Displays the print mode currently set.	Determines the new parameter value and changes the LCD monitor display to the next menu. Sets the parameter value and changes the LCD monitor display to the next menu.
9	[CANCEL] key	-	Cancels the new parameter value and changes the LCD monitor display to the next menu. Clears the parameter value and changes the LCD monitor display to the next menu.

(1) LCD monitor and status lamps

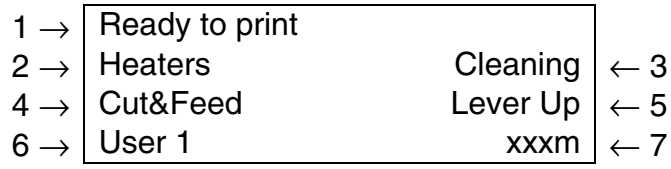
No.	Name	Colour	Status	Function
10	LCD monitor	-	-	The monitor displays the operation status and error messages of the printer.
11	POWER lamp	Green	ON	The printer is on.
			OFF	The printer is off.
12	ERROR lamp	Red	Flashing	An error has occurred. The contents will be displayed on the LCD monitor.
			OFF	Either there is no error or the power is off.
13	DATA lamp	Orange	ON	The printer is receiving print data.
			Flashing	The printer is analysing received data.
			OFF	The printer is waiting to receive print data.
14	MEDIA SET lamp	Orange	ON	➢ The pressure roller is in the release position. ➢ Media has not been loaded.
			OFF	➢ The pressure roller is in the secured position. ➢ The media has not been loaded.
15	ROLL lamp	Orange	ON	The media type is set to roll media.
			OFF	The media type is set to sheet media.
16	SHEET lamp	Orange	ON	The media type is set to sheet media.
			OFF	The media type is set to roll media.
17	HEATER lamp	Orange	ON	The temperature of the heating elements is the requested temperature. The real temperature is the same as the requested temperature.
			Flashing	The heating elements are warming up. The real temperature is different as the requested temperature.
			OFF	The heating elements are powered OFF.

2.4. PRINTER STATUS

The status of the printer is explained below.

2.4.1. Normal

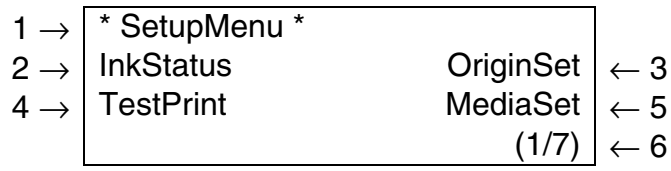
Indicates that the printer can draw print data when media is loaded.
You can also make settings concerning printing using the operation panel.
The contents displayed on the LCD monitor of the operation panel is as follows.



No.	Position	Description
1	1st line	Displays the current status of the printer. Depending on the status, the contents may be displayed in 2 to 4 lines.
2	Left of 2nd line	Displays the function assigned to [F1] key.
3	Right of 2nd line	Displays the function assigned to [F2] key.
4	Left of 3rd line	Displays the function assigned to [F3] key.
5	Right of 3rd line	Displays the function assigned to [F4] key.
6	Left of 4th line	Displays the currently set media type.
7	Right of 4th line	Displays the approximate amount of remaining media that is currently set. (Units: m) However, the amount is displayed only when either "Roll media 1", "Roll media 2", or "Roll media 3" is selected in the Roll media setting menu.

2.4.2. Setting menu display

Indicates that you can make settings concerning printing using the operation panel.
Operation regarding printing is possible via the operation panel.
The contents displayed on the LCD monitor of the operation panel is as follows.



No.	Position	Description
1	1st line	Displays the setting menu name currently set.
2	Left of 2nd line	Displays the function assigned to [F1] key.
3	Right of 2nd line	Displays the function assigned to [F2] key.
4	Left of 3rd line	Displays the function assigned to [F3] key.
5	Right of 3rd line	Displays the function assigned to [F4] key.
6	4th line	Displays the currently available functions of the [F1] key to the [F4] key. Displays the page status if there are multiple pages for the currently displayed setting menu.

2.4.3. Changing the printer status

To change the printer status, follow the steps below.

(1) Changing the status from normal to the setting menu display

Press either [MENU ↑] or [MENU ↓] on the operation panel when the printer is in normal status.
- The display of the operation panel changes to the Setting menu display.

Notes :

- Refer to "Setup menu" for details of the setting menu.

(2) Changing the status from the setting menu display to normal

Take one of the following actions when the printer is in the setting menu display to change the operation panel display to normal one.
- Press the [CANCEL] key on the operation panel.
- Leave the printer as it is for 3 minutes when the status is in the setting menu display.

Ready to print	
Heaters	Cleaning
Cut&Feed	Lever Up
User 1	xxxm

[MENU ↑] or [MENU ↓] ↓ ↑ ↓ ↑ [CANCEL] or leave the printer as it is for 3 minutes

* SetupMenu *	
InkStatus	OriginSet
TestPrint	MediaSet
	(1/7)

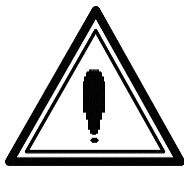
Notes :

- Refer to 'Status messages" for details of displaying the printer status.

3. SETTING UP THE UNIT

3.1. UNPACKING

The unpacking procedure is described below.
The product is sent to the user in 2 boxes, 1 for the main unit and the other for the stand.



Caution :

- When unpacking this product, always work with at least 4 people.
- When removing this product from the packaging box, always remove the vinyl plastic, and hold on the side of the product. Holding the unit over the vinyl plastic wrapping can result in slippage and dropping the unit, resulting in damage.

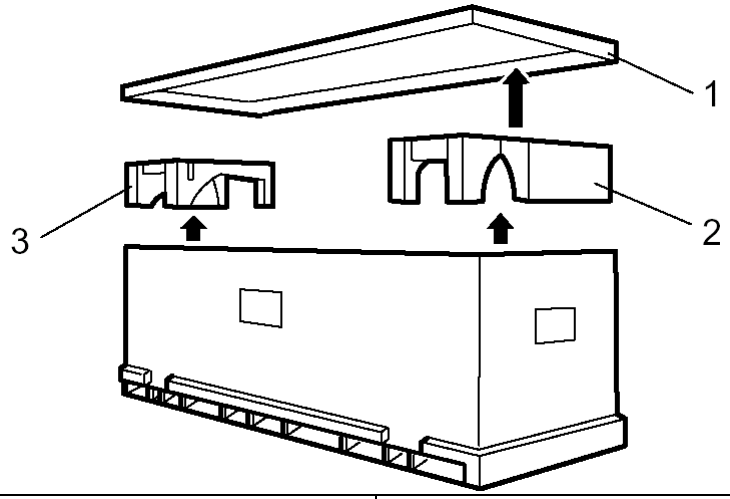
3.1.1. Unpacking packaging box of the main unit

Unpack the package of the main unit according to the following procedure.

Step 1 : Move the packaging of the main unit to the location to unpack.

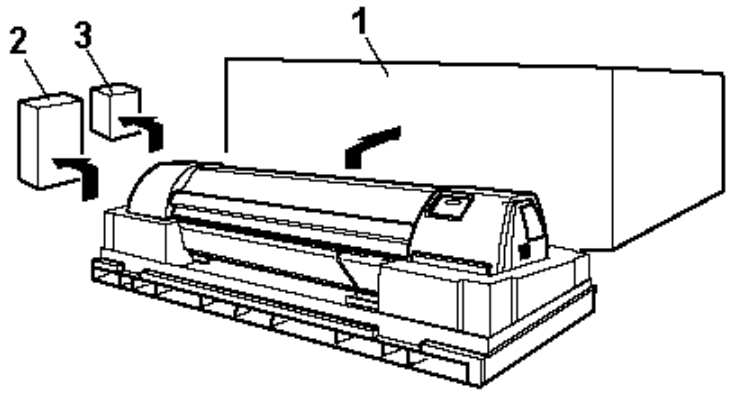
Step 2 : Remove the restraining bands.

Step 3 : Remove the top board and take out the packaging material (right upper side and left upper side).



1. Top board	2. Packaging material (right upper side)
3. Packaging material (left upper side)	

Step 4 : Remove the outer boards and take out the accessory box and the packaging box of the waste fluid tank.



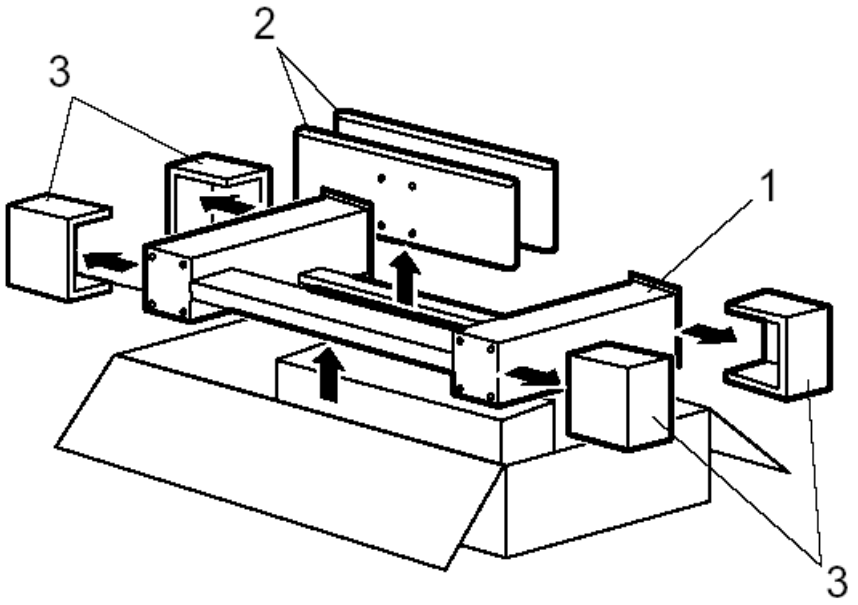
1. Outer board	2. Accessory box
3. Packaging box of the waste fluid tank	

3.1.2. Unpacking stand packaging box

Unpack the package of the stand according to the following procedure.

Step 1 : Move the packaging of the stand to the location to unpack.

Step 2 : Open the package and take out the foot, stay and the four packaging materials.



1. Stay	2. Foot
3. Packaging material	

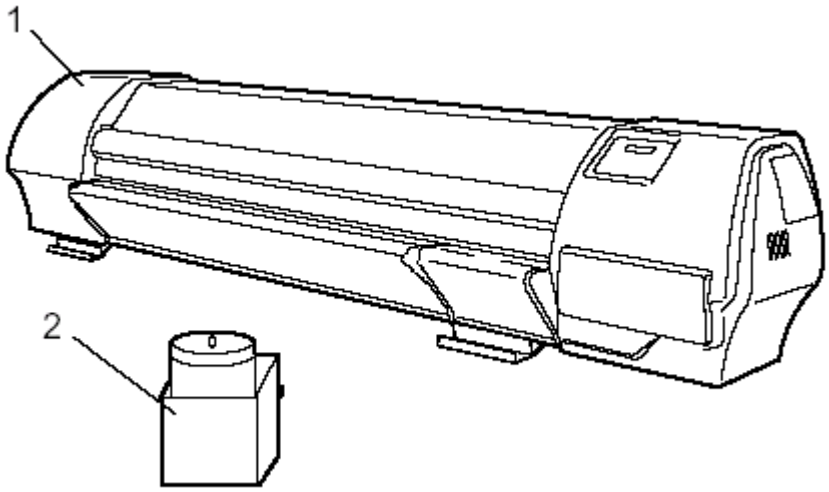
3.2. VERIFICATION OF PACKAGED ITEMS

After unpacking the packaging box, inspect if the unit is not damaged and that all necessary parts are present.

Notes :

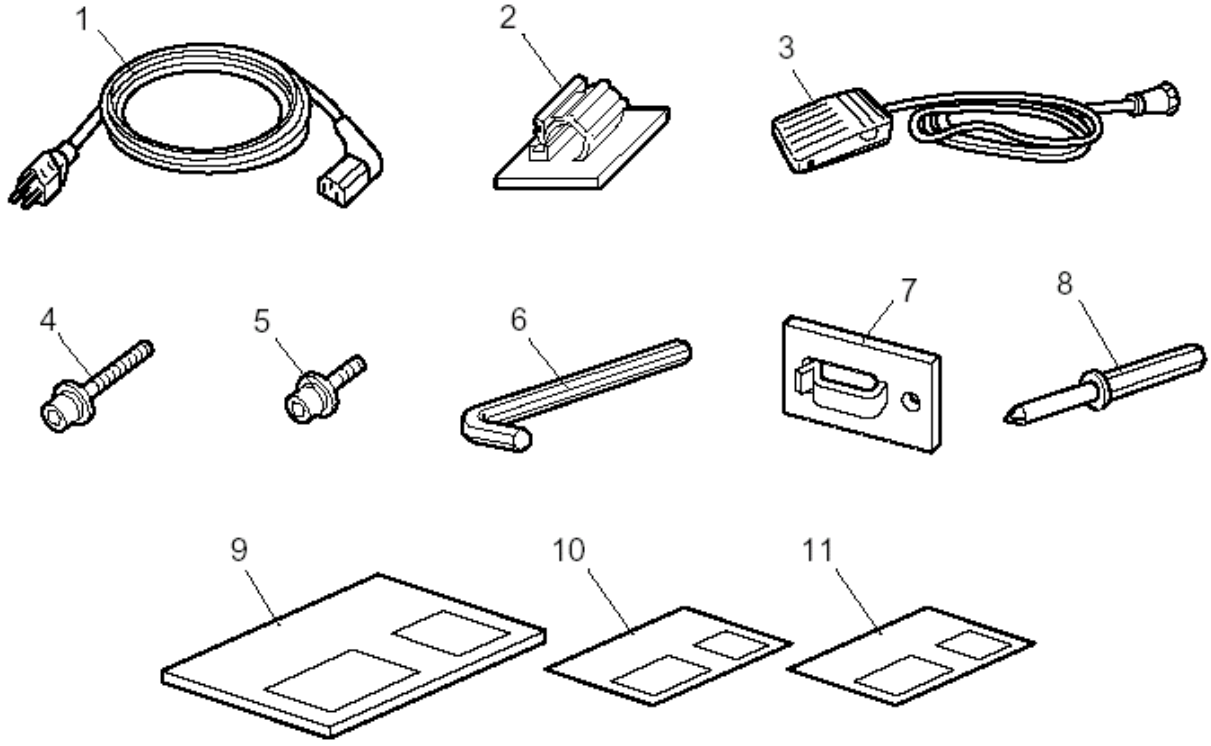
- The contents of the packages may be different depending on the market where they are used. Contact your local MUTOH dealer for details.
- If any part is missing or broken, contact either of the following:
  - The shop where you bought your MUTOH printer.
  - Your local MUTOH dealer.

3.2.1. Packaging box of the main unit



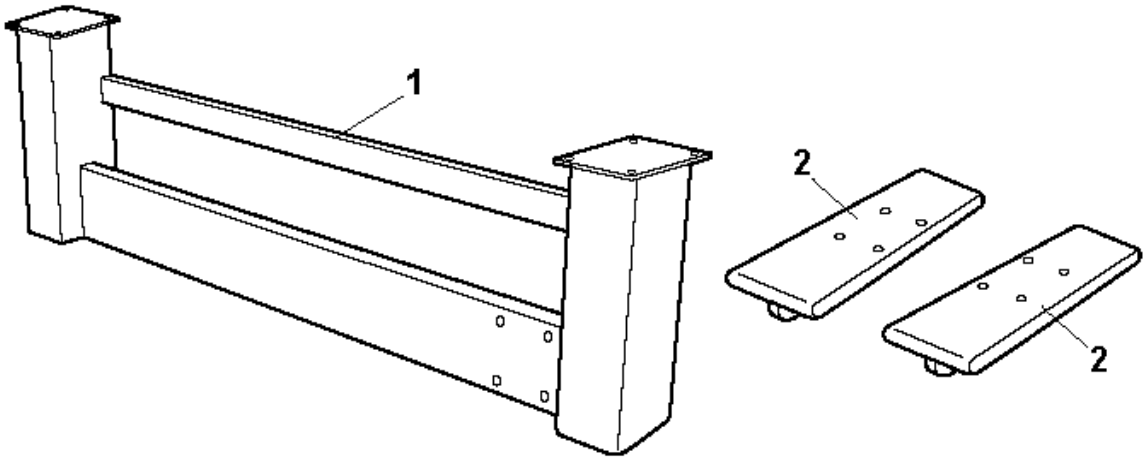
1	Main unit	1 set	3	Accessory box	1 set
2	Waste fluid tank	1 set			

3.2.2. Accessories box



1	Power cable	1	7	Cable clamp	3
2	Tube clamp	2	8	Screw driver	1
3	Foot switch	1	9	User's Guide	1
4	Hexagon socket head cap screw (M6 x 30)	8	10	Quick Start Manual	1
5	Hexagon socket head cap screw (M6 x 16)	8	11	Installation sheets	
6	Assembly tool (Hexagon wrench: diagonal diameter 5mm)	1			

3.2.3. Stand packaging box



1	Stay	1 set	2	Foot	2

3.3. ASSEMBLY

The assembly of this product is described below.

Caution :

When assembling this product, always work with at least 4 people or more.

3.3.1. Assembling the stand

Assemble the stand according to the following procedure.

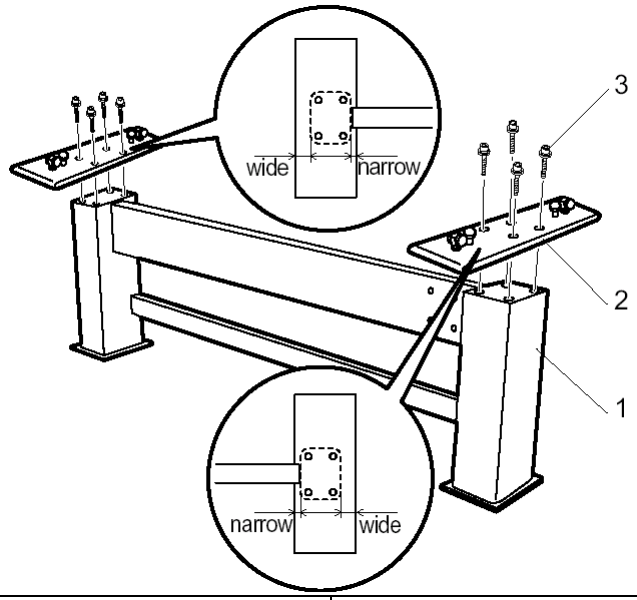
Step 1 : Place the stand upside down as shown in the figure.

Step 2 : 2. Install the foot to the stay according to the following procedure.

A) : Attach two feet on the bottom of the stay as shown.

B) : Attach the hexagon socket head cap screws (M6 x 30: each 4) to each foot.

C) : Using the assembly tool, tighten the hexagon socket head cap screws to install the feet.



1. Stay	2. Foot
3. Hexagon socket head cap screw (M6 x 30)	

Step 3 : Assembling the stand has been completed.

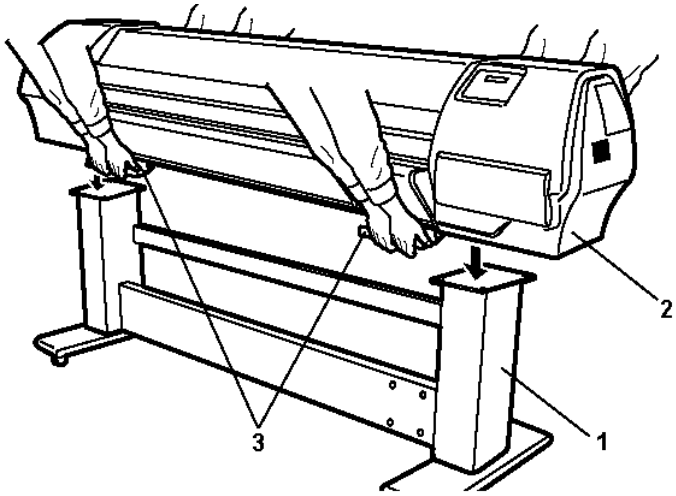
3.3.2. Installing the stand

Install the stand to the main unit according to the following procedure.

Step 1 : Place the stand with its feet on the floor.

Step 2 : Lift up the main unit with at least four persons by holding it by the handles.

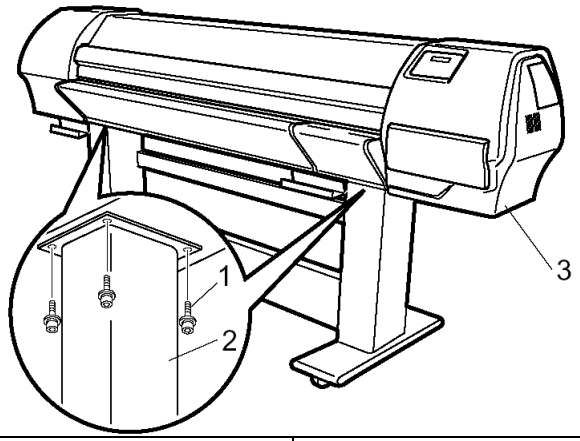
Step 3 : Place the main unit on the stand.



1. Stand	2. Main unit
3. Handle	

Step 4 : Attach the hexagon socket head cap screws (M6 x 16: 8) to the stand.

Step 5 : Tighten the hexagon socket head cap screws to install the stand using the assembly tool.



1. Hexagon socket head cap screw (M6 x 16)	2. Stand
3. Main unit	

Step 6 : Installing the stand has been completed.

3.3.3. Fixing the printer body onto the stand

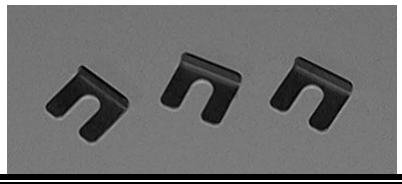
After installation of the unit onto the stand, please check if there is no gap between the printer body and the stand.

When you notice that there is a gap between the printer body and the stand, please follow the instructions mentioned below to minimize this gap.

Notes :

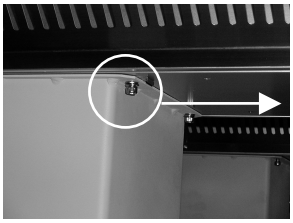
Please find enclosed three types of spacers.

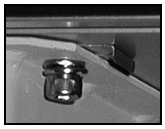
- 5 pieces : 0.3 mm spacer
- 5 pieces : 0.5 mm spacer
- 5 pieces : 1.0 mm spacer

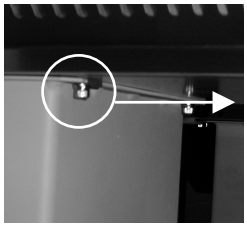


Step 1 : In case there is a gap between the stand and the printer body, loosen the screw fixing the stand to the unit.

Step 2 : Insert a spacer in-between the stand and the printer body.







Step 3 : Fully insert the spacer between the stand and the printer body.

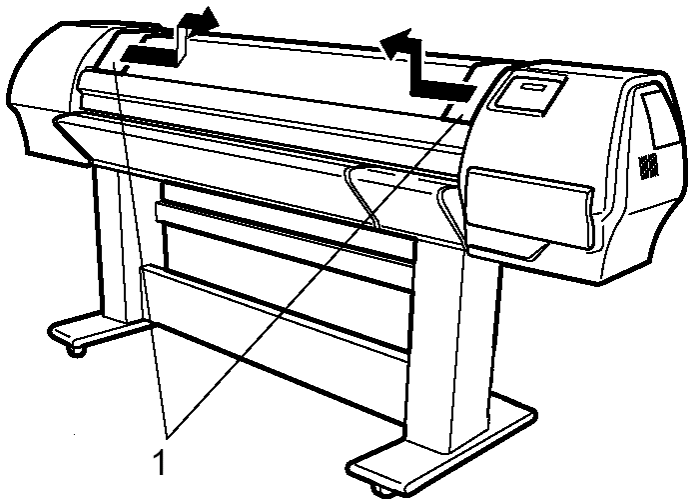
Step 4 : Tighten the screw.

3.3.4. Removal of protective packaging material

Protective packaging material is attached on following locations of this product.
Remove all protective packaging material according to the following procedure.

Step 1 : Remove tape from all parts of the product.

Step 2 : Remove the two anti-rubbing materials on the top of the main unit.



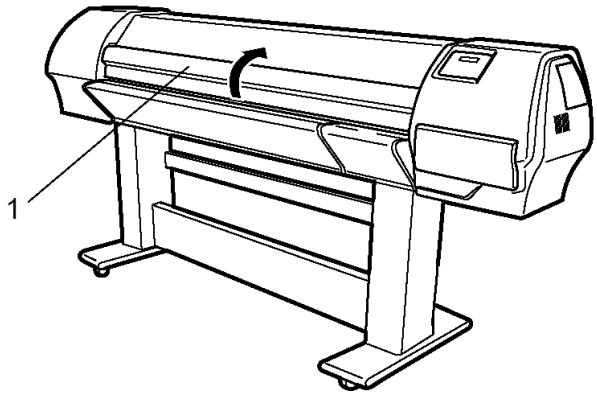
1. Anti-rubbing material

Step 3 : Remove the head unit fixture material from inside the front cover according to the following procedure.

A) : Open the front cover.

Caution :

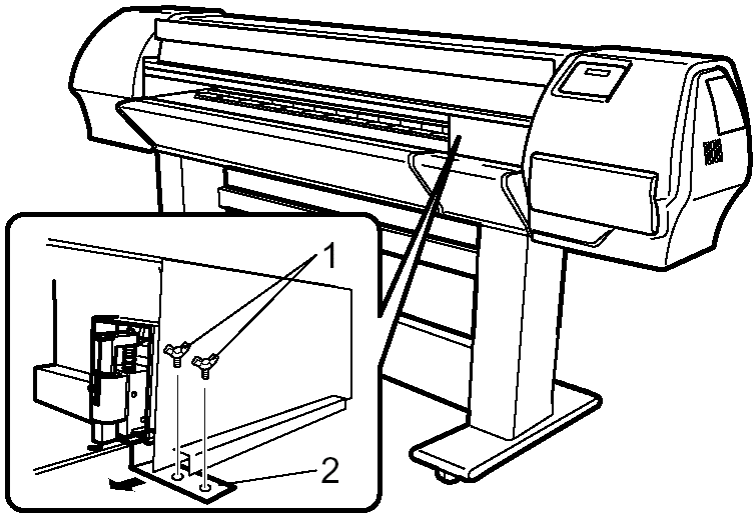
Be careful not to pinch your fingers when opening and closing the front cover.



1. Front cover

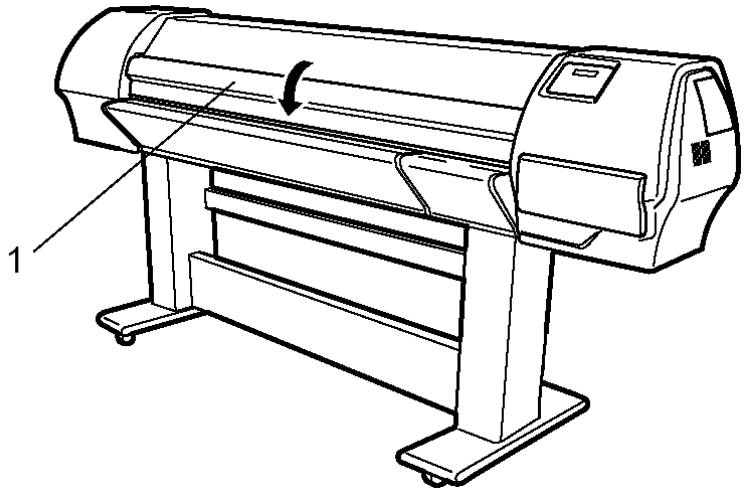
B) : Remove the two wing bolts.

C) : Remove the head unit fixture material.



1. Wing bolt	2. Head unit fixture material

D) : Close the front cover.

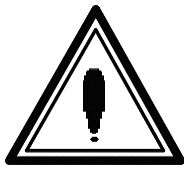


1. Front cover

Step 4 : Removal of protective packaging material is completed.

3.3.5. Installing accessories

To install accessories, such scroller receivers, take-up system, roll-off/roll-up system and waste fluid tank, please refer to the User's Guide "Handling roll media on a Falcon II series printer and Rockhopper II series printer".

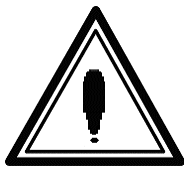


Caution :

- Before powering ON the unit, make sure the waste bottle is installed.

3.4. HOW TO MAKE YOUR PRINTER OPERATIVE

The installation Eco-Solvent Plus ink cassettes for the first time into the unit is explained below.



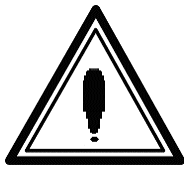
Caution :

- When handling Eco-Solvent Plus ink cassettes, be careful that ink does not get in your eyes or on your skin. However, if this happens, flush immediately with water. Otherwise, your eyes may become congested or inflamed slightly. If you feel discomfort, consult a doctor immediately.
- Do not disassemble ink cassettes. Otherwise, ink may get in your eyes or on your skin.
- Only use Eco-Solvent Plus ink and appropriate Eco Solvent Plus cleaning liquid. Using other ink (e.g. dye or pigment) could cause permanent damage to the printer.

Notes :

- This product has been tuned for the use of Eco-Solvent Plus ink cassettes. If other manufacturers' products are used,
  - drawing results become faint or ink ends are not properly detected, and
  - the warranty will not cover (repairs will require a fee) any resultant breakdown.
- Refer to the price list for the different types and details of ink cassettes.
- Do not shake ink cassettes strongly. Otherwise, ink may leak.
- Do not disassemble ink cassettes. You cannot use disassembled cassettes.

To install ink cassettes, follow the steps below.

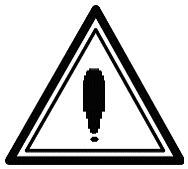


Caution :

- Before powering ON the unit, make sure to:
  - Remove the dummy cassettes
  - Remove the waste tube clamps
  - Remove the bag enclosing the waste tubes
  - Connect the waste tubes

Step 1 : Before powering ON the unit for the first time, please be sure to have :

- 8 Eco Solvent Plus cleaning cassettes (related to the requested ink configuration on the cassette cover)
- 8 cassettes of Eco Solvent Plus Ink.



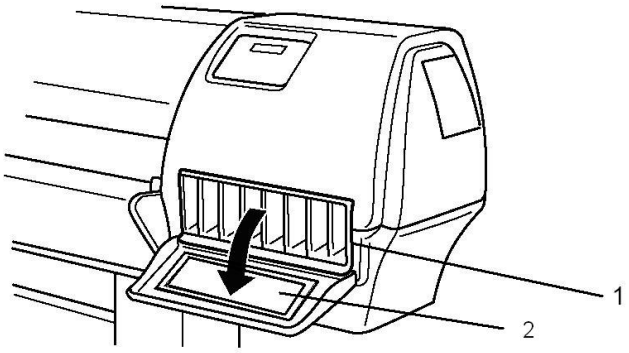
Caution :

- When powering ON the unit for the first time, a cleaning cycle automatically starts. Please follow the instructions mentioned on the display.

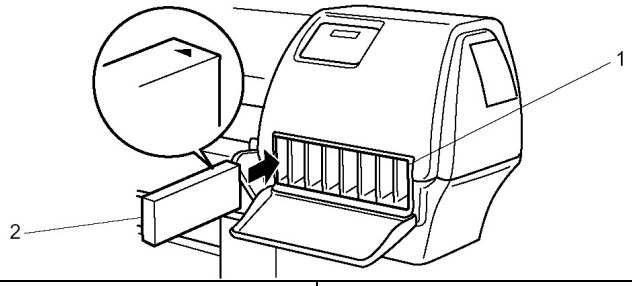
Step 2 : Check if the Waste Bottle is empty.

Step 3 : Power ON the unit. The display will request to insert the Cleaning Cassettes.

- Install the 8 NEW Eco Solvent Plus Cleaning Cassettes (related to the requested ink configuration).



1. Ink compartment	2. Ink configurations



1. Ink cassette slot	2. Cleaning cassette

The display will show the following message.

Ink refill rest 11 min

Please note that you have to wait 1 minute if the display mention 0 minutes.

Ink refill rest 0 min

Step 4 : The display will show the following message. Empty the waste Bottle.

Please empty Waste ink tank

Step 5 : After emptying the Waste Bottle following message will be shown. Remove all the Cleaning Cassettes.

Please remove cassettes

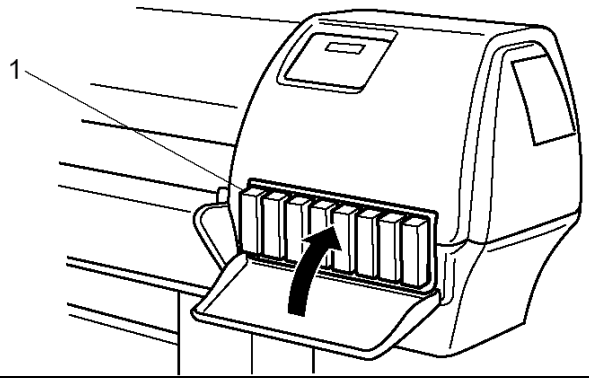
Step 6 : After removing the Cleaning Cassettes, following messages will appear on the display.

Please insert New ink [ALL]

Step 7 : Insert the requested configuration of Eco Solvent Plus ink cassettes.

- The ink cassette must be put in a specific slot according to the type and colour used.
- Insert the cassette with the arrow mark face-up and pointing to the rear of the printer.
- Insert the cassette as far as possible.

Step 8 :



1. Ink compartment

Step 9 : After inserting the ink cassettes, following message will be shown.

Ink refill rest 11 min

Please note that you have to wait 1 minute if the display mention 0 minutes.

Ink refill rest 0 min

Step 10 : If the display shows following message, please empty the Waste ink bottle.

Please empty Waste ink tank

Step 11 : The installation Eco-Solvent Plus ink cassettes has been finished.

Notes :

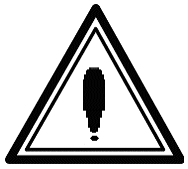
- During ink installation, note the following.
  - Do not power off the printer.
  - Do not unplug the power cable.
  - Do not open the front cover.

3.5. INSTALLATION

Product installation is explained below.

3.5.1. Choosing a place for the printer

Install the unit on a proper location referring to the following.



Important :

- **Do not place the printer on a location under the following conditions. Doing so may cause the product to fall, become damaged, or cause injury.**
  - **Unstable surfaces**
  - **Slanted surfaces**
  - **Locations that are subject to vibration from other product**
- **Do not stand on the printer or place any heavy objects on it. Doing so may cause it to fall over, become damaged, or cause injury.**
- **Do not cover the ventilation hole of the printer with cloth, such as a blanket or table cloth. Doing so could prevent the printer from ventilating and cause fire.**
- **Keep the printer away from humid and dusty areas. Humidity may result in electrical shock or fire.**

3.5.1.1. Installation environment Requirements

Choose a place for printer installation following the requirements in the table below.

Area	50" model	11.7m² (133ft²) or larger. Frontage of 4.3m (14.3ft) or greater.
	64" model	12.7m² (144ft²) or larger. Frontage of 4.7m (15.7ft) or greater.
	87" model	14.3m² (162ft²) or larger. Frontage of 5.3m (17.7ft) or greater.
Floor loading capability		2490Pa (300kg/m²) or over
Electrical	Voltage	AC100V - 120V or AC220V – 240V
	Frequency	50/60Hz±1Hz
	Capacity	AC100V - 120V: 12A or more AC220V - 240V: 6A or more
Environmental	Recommended working environment	Temperature: 25°C Humidity: 40% to 60%, without condensation
	Operational conditions	Temperature: 18°C to 35°C Humidity: 40% to 60%, without condensation
	Rate of change	Temperature: No more than 2°C per hour Humidity: No more than 5% per hour
	Storage environment	Temperature: -20°C to 60°C Humidity: 5□ to 85%, without condensation (When ink has been discharged.)

Notes :

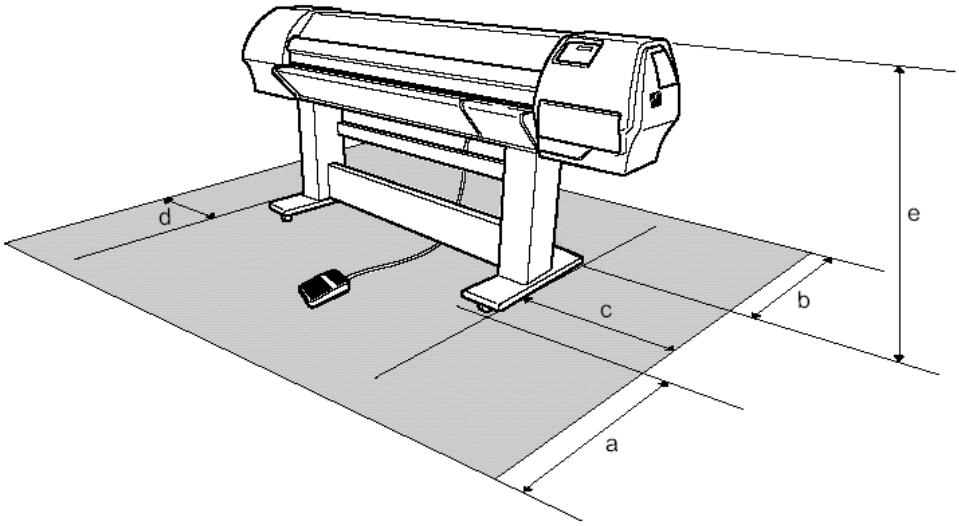
- Avoid the following temperature and humidity conditions. Otherwise, printed images may appear differently from what you expect:
  - Places where sudden changes in temperature and humidity are expected, even though the condition is within the range written above.
  - Places where direct sunlight or excessive lighting are expected.
  - Places where air conditioners blow directly.
- MUTOH recommends that the printer should be installed where air conditioning can be adjusted easily.

3.5.1.2. Required space

Install the product on a flat surface that fulfills the following conditions.

Notes :

- Refer to "Product Specifications" of the User's Guide for the information of the product.



a=1000mm b=1000mm c=2500mm d=600mm e=1250mm

3.5.2. Installing the printer

To install the product, follow the steps below.

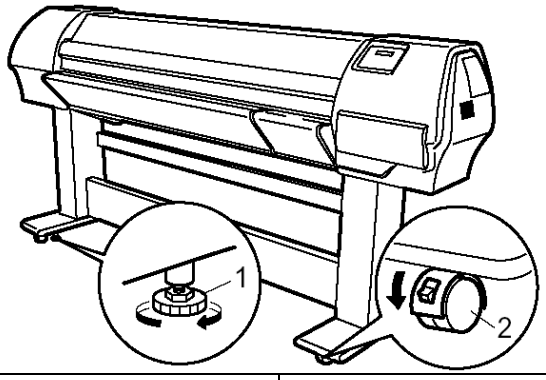
Step 1 : Move the product to where it will be installed.

Step 2 : Lock the casters.

Step 3 : Rotate the four adjusters in the direction shown in the figure to make the printer stable.

Step 4 : Jiggle the printer to make sure that it stable.

Step 5 :



1. Adjuster	2. Caster

4. PREPARING FOR A JOB

4.1. INTRODUCTION

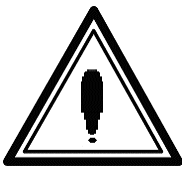
The procedures needed before using the printer are explained below.

4.2. CONNECTING THE POWER CABLE

The connection procedure for the power cable is explained below.

Important :

- **Make sure that the distributed power cable is used. Use of a different cable may result in electric shock or fire.**
- **Do not use a damaged power cable. Doing so may result in electric shock or fire.**
- **The disconnect device is the plug on the power supply cord.**



Caution :

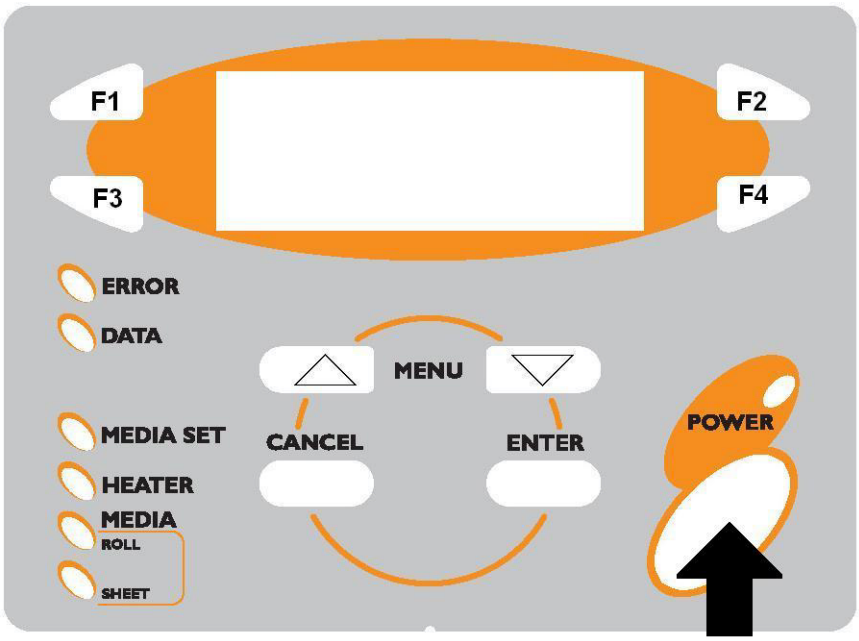
- Be careful of the following when handling the power cable.
  - Do not make any modifications to the power cable.
  - Do not place anything heavy on the power cable.
  - Do not bend, twist, or pull the cable.
  - Do not wire the cable near equipment that generates heat.

Notes :

- If the power cable is damaged, contact one of the following :
  - The shop where you bought your MUTOH printer.
  - Your local MUTOH dealer.

To connect the power cable, follow the steps below.

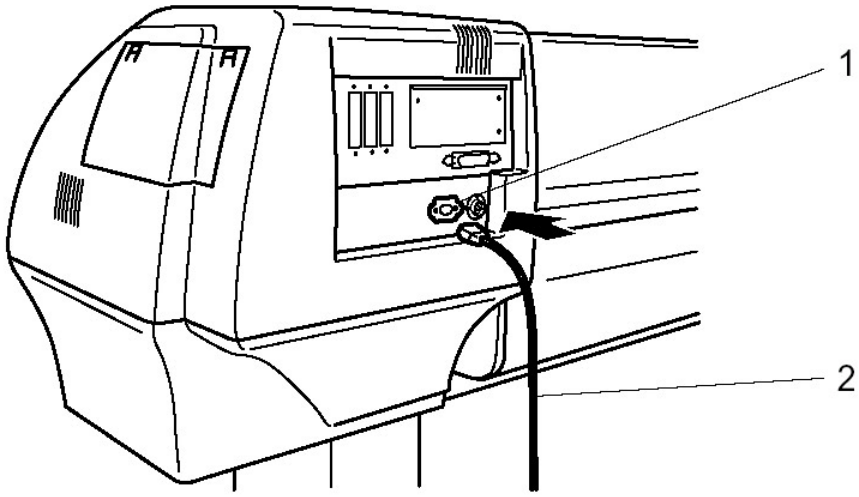
Step 1 : Make sure the printer is off.



Notes :

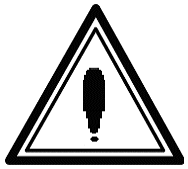
- When the operation panel is in the following condition, the power is ON. Press the key again to turn the power OFF.
  - The POWER lamp is lit (green).

Step 2 : Plug the power cable to the AC inlet on the back of the printer.



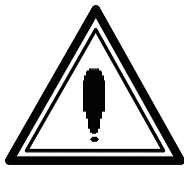
1. AC inlet	2. Power cable

Step 3 : Plug the cable correctly to the outlet.



Important :

- **Do not attempt to plug in electrical plugs with wet hands. Doing so may result in electrical shock.**
- **Be sure to use the specified voltage (AC 100V-120V/220V-240V). Otherwise, electrical shock or fire may occur.**
- **Use electricity directly from a power outlet (AC 100V-120V/220V-240V). Do not put many loads on one electrical output. Otherwise, heat may be generated and cause fire.**
- **Be sure to use an outlet with an earth terminal, and use the terminal correctly. Otherwise, electrical shock or fire may occur.**
- **Do not connect earth cables in the following areas :**
  - **Gas pipes. Doing so may cause fire or an explosion.**
  - **Earth terminals for telephone lines or lightening rods. Doing so may cause a large flow of voltage if lightening occurs.**
  - **Water pipes or faucets. If there is a plastic part in the pipe, the earth will not work correctly.**

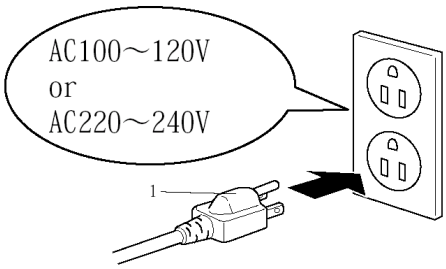


Caution :

- Follow the instructions below when handling the power plug. Otherwise, fire may occur.
  - Wipe away dust and any other residue before inserting the plug.
  - Ensure that the plug is firmly inserted as far as it will go.
- Ensure that the plug has been disconnected from the power socket when it is not used for a long time.
- Earth wires must be connected to wires or terminals that fulfill the conditions :
  - Earth terminals of power socket
  - Earth wires with copper morsel that is at least 650 mm under ground

Notes :

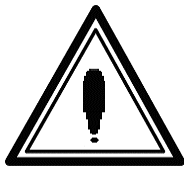
- If you cannot use earth terminals or find any of them, contact the shop where you bought your printer.
- Do not unplug the power cable when the printer is on. If the power cable has been unplugged, leave the printer for at least 1 minute before plugging the cable in again.



1. Power cable

4.3. CONNECTING THE FOOT SWITCH

The connection procedure for the foot switch is described below.
If the pressure roller needs to be raised or lowered, it is possible to control this motion from the foot switch, instead of doing so at the operation panel.



Caution :

- When handling the foot switch, be aware of the following:
  - Do not place anything heavy on the foot switch.
  - Do not bend the cable of the foot switch with force and do not pull.
  - Do not place the foot switch near thermal devices.

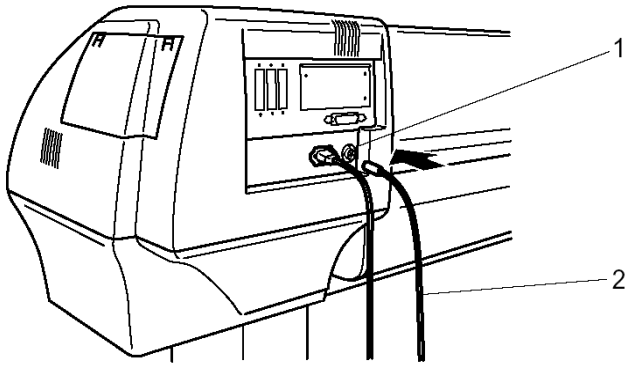
Install the foot switch according to following procedure.

Step 1 : Make sure that the power of the unit is OFF.

Notes :

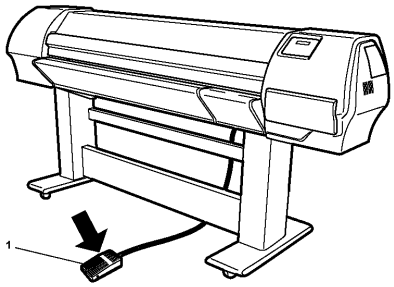
- When the operation panel is in the following condition, the power is ON. Press the key again to turn the power OFF.
  - The POWER lamp is lit (green).

Step 2 : Connect the foot switch cable connector to the foot switch connector at the rear of the unit and fix into place with a screw.



1. Foot switch connector	2. Foot switch cable

Step 3 : Place the foot switch on the floor under the stand.



1. Foot switch

4.4. TURNING THE POWER ON/OFF

The method to turn the power ON or OFF is described below.

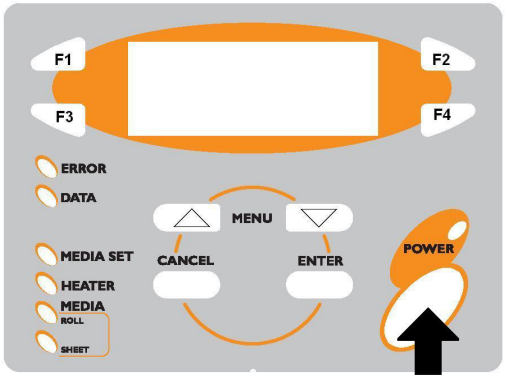
Caution :

- Before powering ON the unit, make sure the waste bottle is installed.

4.4.1. Turning the power ON

Turn the power of the unit ON according to following procedure.

Step 1 : Press the [POWER] key of the operation panel, to turn the unit ON.
- ➢ The POWER lamp of the operation panel will light (green).



Step 2 : The unit will initial startup operations.

Step 3 : After finishing initial startup operations, the unit will enter the normal operating condition.

Notes :

- If there are any problems during the initial startup operation, the unit will display a message on the operation panel, and the operation may stop. If the operation stops, refer to "Troubleshooting", and take the appropriate actions.

4.4.2. Turning the power OFF

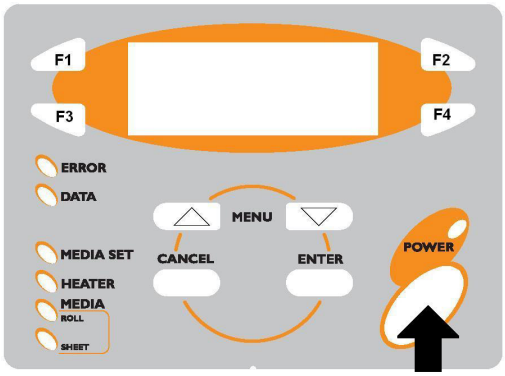
Turn the power of the unit OFF according to the following procedure.

Step 1 : Verify the following regarding the operational condition of the unit.
- ➢ There is no printing operation being performed.
- ➢ The operation panel is in a normal status.

Step 2 : Press the [POWER] key of the operation panel to turn the unit OFF.

Notes :

- When the operation panel is in the following condition, the power is ON. Press the key again to turn the power OFF.
  - The POWER lamp is lit (green).



Step 3 : Following message is displayed for 3 seconds on the operation panel.

Notes :

- If pressing the [POWER] key on the operation panel by mistake, press the [POWER] key again while the following message is displayed.

Power OFF

Step 4 : The product will perform the power OFF operation.

- Following message is displayed on the operation panel.

Power OFF Please Wait

- All lamps and the LCD of the operation panel will turn OFF.
- The product will automatically turn the power OFF.

Notes :

- If there are problems during the power OFF operation, the unit will display a message on the operation panel, and the operation may stop. If the operation stops, refer to "Troubleshooting" and take the appropriate actions.

4.5. INSTALLING ECO-SOLVENT PLUS INK CASSETTES

The installation of Eco-Solvent Plus ink cassettes for the first time into the unit is explained below.

Caution :

- Before powering ON the unit, make sure the waste bottle is installed.

Caution :

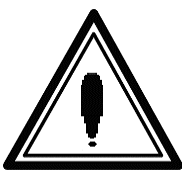
- When handling Eco-Solvent Plus ink cassettes, be careful that ink does not get in your eyes or on your skin. However, if this happens, flush immediately with water. Otherwise, your eyes may become congested or inflamed slightly. If you feel discomfort, consult a doctor immediately.
- Do not disassemble ink cassettes. Otherwise, ink may get in your eyes or on your skin.
- Only use Eco-Solvent Plus ink and appropriate cleaning liquid. Using other ink (e.g. dye or pigment) could cause permanent damage to the printer.

Notes :

- This product has been tuned for the use of Eco-Solvent Plus ink cassettes. If other manufacturer's products are used,
  - drawing results become faint or ink ends are not properly detected, and
  - the warranty will not cover (repairs will require a fee) any resultant breakdown.
- Refer to the price list for the different types and details of ink cassettes.
- Do not shake ink cassettes strongly. Otherwise, ink may leak.
- Do not disassemble ink cassettes. You cannot use disassembled cassettes.

To install ink cassettes, follow the steps below.

Step 1 : Before powering ON the unit for the first time, please be sure to have :
- 8 cleaning cassettes (related to the requested ink configuration)
- 8 cassettes of the requested ink configuration



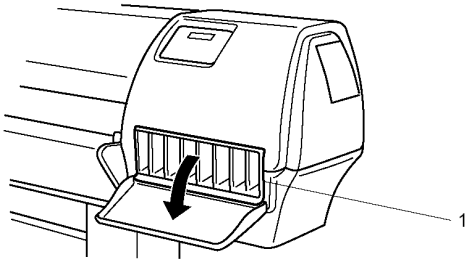
Caution :

- When powering ON the unit for the first time, a cleaning cycle should be done. Please follow the instructions mentioned on the display.

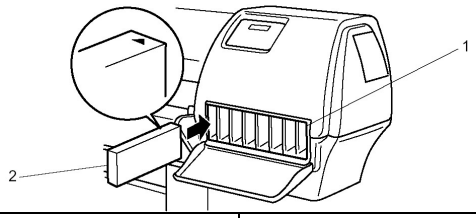
Step 2 : Check if the Waste Bottle is empty.

Step 3 : Power ON the unit. The display will request to insert the Cleaning Cassettes.

- Install the 8 NEW Cleaning Cassettes (related to the requested ink configuration).



1. Ink compartment



1. Ink cassette slot	2. Cleaning cassette

The display will show the following message.

Ink refill rest 8 min

Please note that you have to wait 1 minute if the display mention 0 minutes.

Ink refill rest 0 min

Step 4 : The display will show the following message. Empty the waste Bottle.

Please empty Waste ink tank

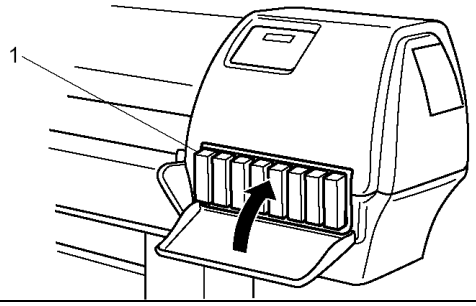
Step 5 : After emptying the Waste Bottle following message will be shown. Remove all the Cleaning Cassettes.

Please remove cassettes

Step 6 : After removing the Cleaning Cassettes, following messages will appear on the display.

Please insert New ink [ALL]

Step 7 : Insert the requested configuration of Eco-Solvent Plus ink cassettes.



1. Ink compartment

Step 8 : After inserting the ink cassettes, following message will be shown.

Ink refill rest 8 min

Please note that you have to wait 1 minute if the display mention 0 minutes.

Ink refill rest 0 min

Step 9 : If the display shows following message, please empty the Waste ink bottle.

Please empty Waste ink tank

Step 10 : The installation of Eco-Solvent Plus ink cassettes has been finished.

Notes :

- During ink installation, note the following.
  - Do not power off the printer.
  - Do not unplug the power cable.
  - Do not open the front cover.

4.6. MEDIA HANDLING

Media handling, attaching media, and setting media type are explained below.

4.6.1. Loading sheet media

The procedure for loading sheet media is explained below.
You can use the following sheet media with your printer.

	50" model	64" model	87" model
Width	A4 to 1273 mm max.	A4 to 1651 mm max.	A4 to 2240 mm max.
Length	1300 mm max.		

To load sheet media, follow the steps below.

Notes :

- If roll media is attached to the printer, wind the media up and then load the sheet media.

Step 1 : Turn the printer on.

Step 2 : The printer starts the initialize operation.
- ➢ The following message is displayed on the operation panel.

→
Paper End	
Heaters	Cleaning
Cut&Feed	Lever Up
User1	xxxm

Notes :

- If you do not want to use the media detection at the media initialization: Set to "OFF" in the media detection setup item.

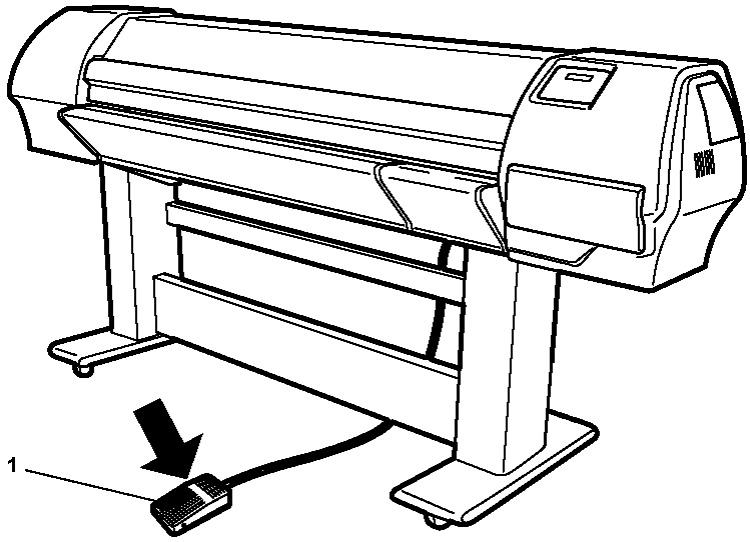
Step 3 : Verify if the sheet lamp on the operation panel is unlit.

Step 4 : Press the [F4] key on the operation panel to lower the pressure rollers.
- ➢ The MEDIA SET lamp will light (orange).
- ➢ The following message is displayed on the operation panel.

→
Please Set Paper	
Heaters	Cleaning
Cut&Feed	Lever Up
User1	xxxm

Notes:

- When raising or lowering the pressurize rollers, you can use the foot switch instead of the operation panel.

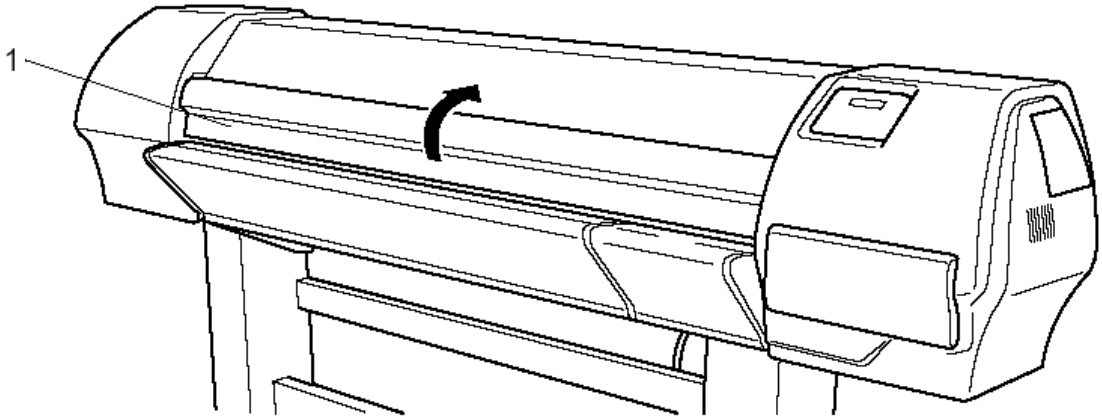


1. Foot switch

Step 5 : Open the front cover.

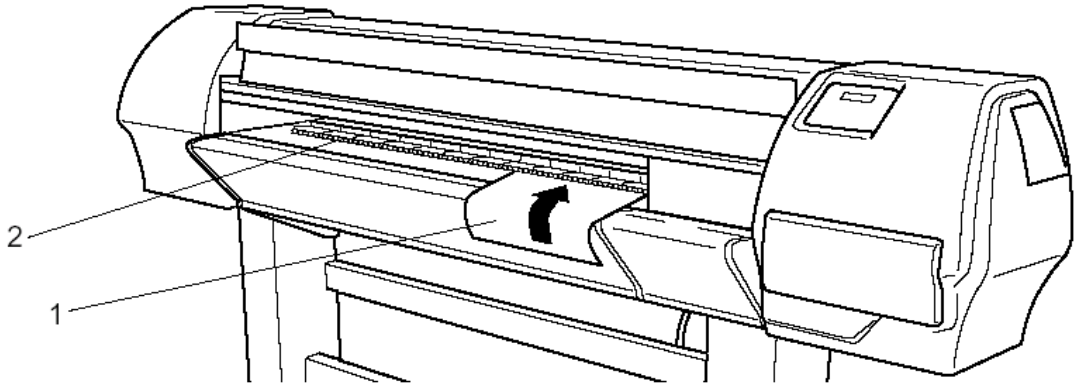
Caution :

- Be careful not to pinch your fingers when opening and closing the front cover.



1. Front cover

Step 6 : Load the sheet media into the insertion slot at the front of the printer.

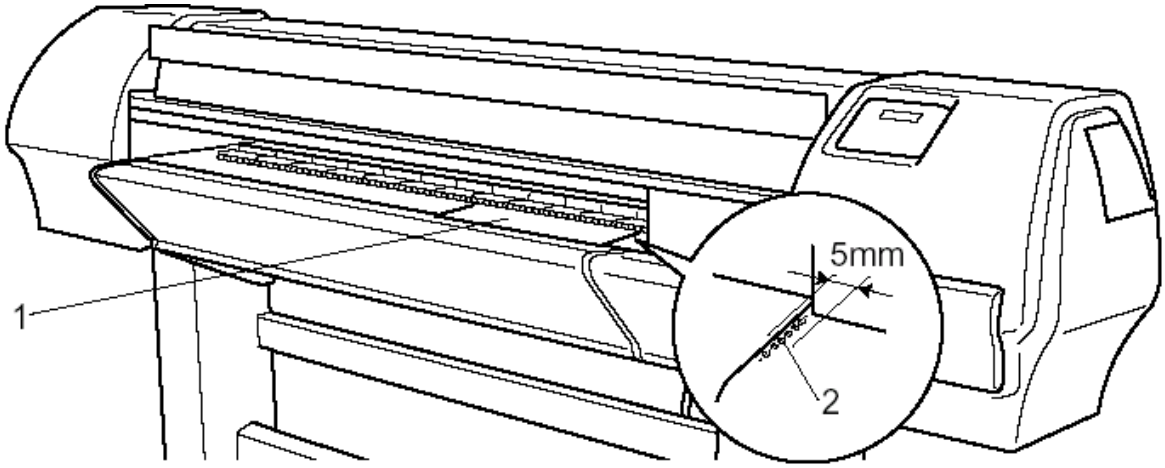


1. Sheet media	2. Insertion slot

Step 7 : Set the right edge of the media so that it is parallel with the media setting position.

Notes :

- The media set position is a guideline for setting up the media.
- If the right edge of the sheet media is 5 mm or more from the media setting position, a media set error may occur if the media is not detected. Make sure to set the right edge of the sheet media within 5 mm of the media setting position.



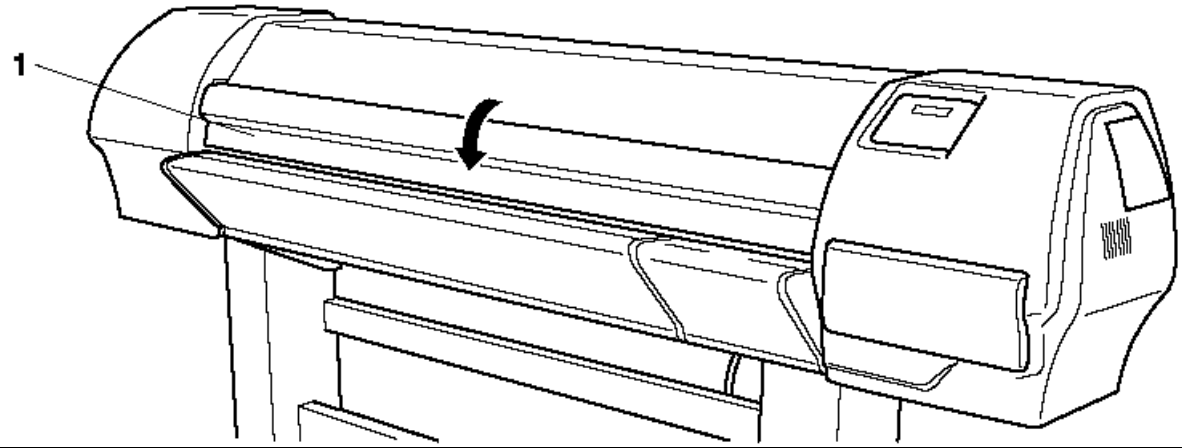
1. Sheet media	2. Media loading position

Step 8 : Press the [F4] key on the operation panel to lower the pressure rollers.
- ➢ The MEDIA SET lamp will turn off.

Step 9 : Close the front cover.

Notes :

- Be careful not to pinch your fingers when opening and closing the front cover.



1. Front cover

Step 10 : The media initial menu is displayed on the operation panel.

Notes :

- To change the media type, follow the directions in "Setting media type".

	* PaperInitialMenu *	
	Roll	← F2
F3 →	LeverUp User1	← F4
	F2, F4 → ENTER or F3	

4.6.2. Loading roll media

To load roll media, please follow the instructions in the User's Guide "Handling roll media on a Falcon II series printer and Rockhopper II series printer".

Notes :

- Depending on the kind of system installed on your printer, loading media is different.

4.6.3. Setting media type

The procedure for setting media type is explained below.
To set the media type, follow the steps below.

Step 1 : Turn the printer on and load the media.
- Once the media has been set, the media initial menu will be displayed.

Notes :

- Refer to following sections to load media :
  - Loading media

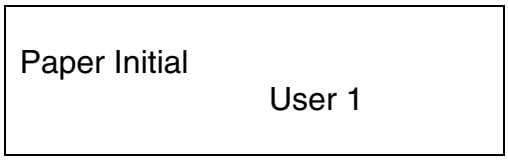
Step 2 : Press one of the following keys on the operation panel, and select the current media type.
- When alternating roll/sheet media selection: [F2]
- When changing from media loading: [F3]
- When changing media type: [F4]

Setup items	Key	Parameters	Description
Media type	F2	Roll media Sheet media	Alternates the roll media type. • Roll media: Set when loading roll media. • Sheet media: Set when loading sheet media.
Lever Down/Up	F3	Lever up Lever down	Switches between up and down motion of the pressurizing lever. Use this when starting over from the media setup.
Media Type	F4	User 1 User 2 User 3 User 4 User 5 User 6 User 7 User 8	Set media type for printing. For setup values of printing operation, eight settings of "user 1-8" can be set. Refer to 'Menu setup on the operation panel'

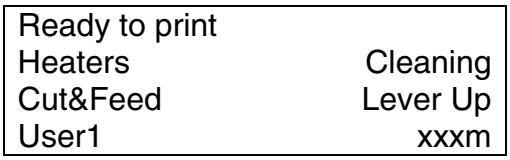
Step 3 : Press the [Enter] key on the operation panel.
- The media type has been set.
- "Media Initial" is displayed on the LCD, and the printer starts the media initial operation.

Notes :

- The printer starts the media initial operation if you :
  - Press the [CANCEL] key on the operation panel
  - Leave the printer for 10 seconds without doing anything



Step 4 : When the media initial operation finishes, the printer moves to normal status.
- The setting media loading procedure has been completed.



4.7. TESTPRINTING

Follow the steps below to do a test print and confirm if your printer operates correctly.

Step 1 : Turn the power of the unit ON, and load the media.

Step 2 : Make sure that your printer is in normal status.

Step 3 : Press either the [MENU ↑] key or [MENU ↓] key on the operation panel.
- The setup menu is displayed.

F3 →

* SetupMenu *	
InkStatus	OriginSet
TestPrint	MediaSet
	(1/6)

Step 4 : Press the [F3] key on the operation panel.
- "TestPrint: SetupPrint" is displayed on the LCD.

F1 → F3 →

* TestPrint *		
Setup	NozzleCheck	← F2
Adj. Uni-D	Adj. Bi-D	← F4
	(1/2)	

F1 →

* TestPrint *		
Palette	Maintenance	← F2
	(2/2)	

Step 5 : Select an item and press the appropriate key.

Setup items	Key name	Parameters	Descriptions
Test Print (1/2)	F1	Setup	Perform Setup List. Refer to 'Setup List'
	F2	Nozzle Check	Perform Nozzle check. Refer to 'Nozzle Check'
	F3	Adj. Uni-D	Perform Alignment for the uni-direction printing. Refer to 'Alignment'
	F4	Adj. Bi-D	Perform Alignment for the bi-direction printing. Refer to 'Alignment'
Test Print (2/2)	F1	Palette	Perform Colour Palette. Refer to 'Colour Palette'
	F2	Maintenance	Perform Maintenance record. Refer to 'Maintenance record'

Step 6 : Print the information on the selected item.

Step 7 : After printing, the printer returns to the normal status.

Ready to print	
Heaters	Cleaning
Cut&Feed	Lever Up
User1	xxxm

4.7.1. Setup List

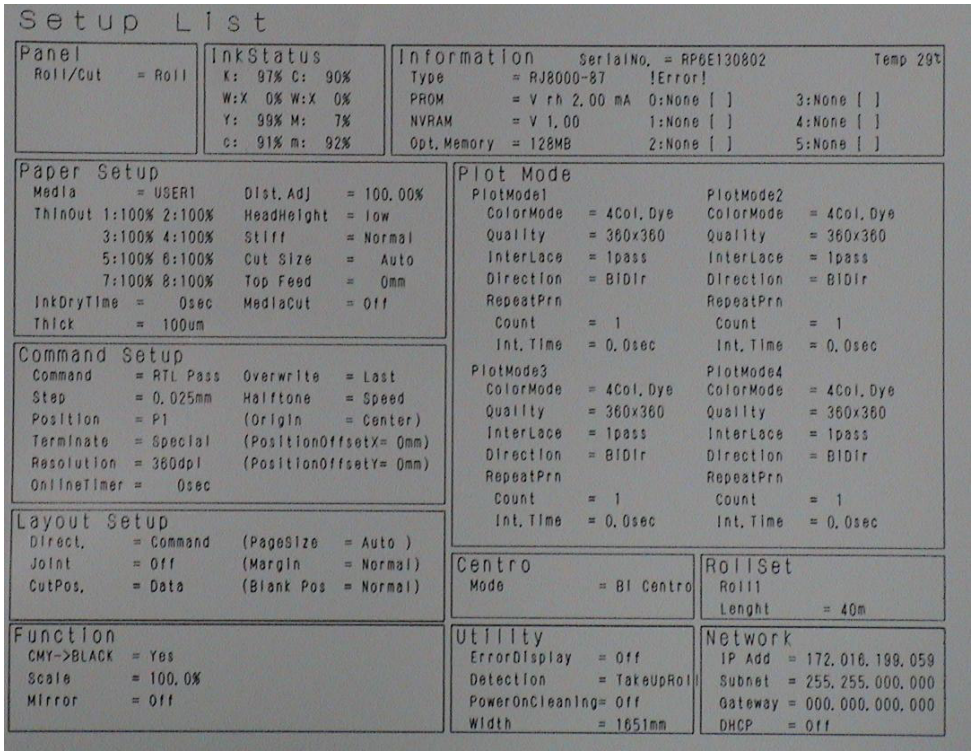
Use this function to check the current status of the printer.

Notes :

- Please attach the SetupPrint data on this page.

Notes :

- For printing, refer to the following.
  - Refer to 'Testprinting'



4.7.2. NozzleCheck

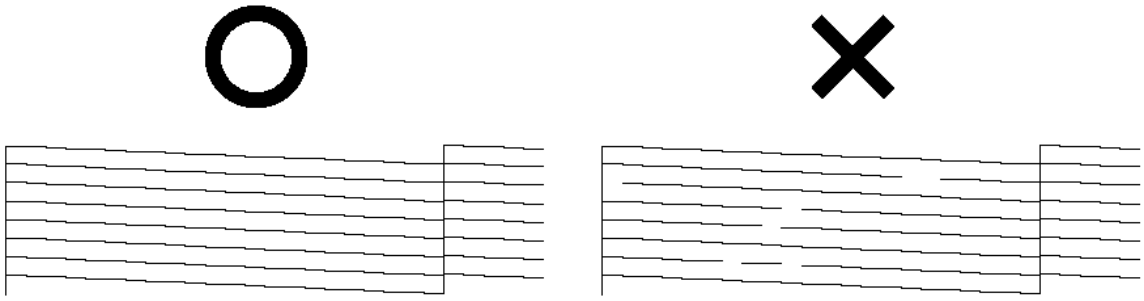
Use this function to check if there is any clogging of nozzles, missing dots or faint printing.

Notes :

- If printing quality declines, or if missing dots are evident after the NozzleCheck, the print heads need to be cleaned. Refer to "Head cleaning" to perform head cleaning. After finishing the head cleaning, perform the NozzleCheck again.

Notes :

- For printing, refer to the following.
  - Refer to 'Testprinting'



4.7.3. Alignment

Use this function to adjust the print quality for best results.

Notes :

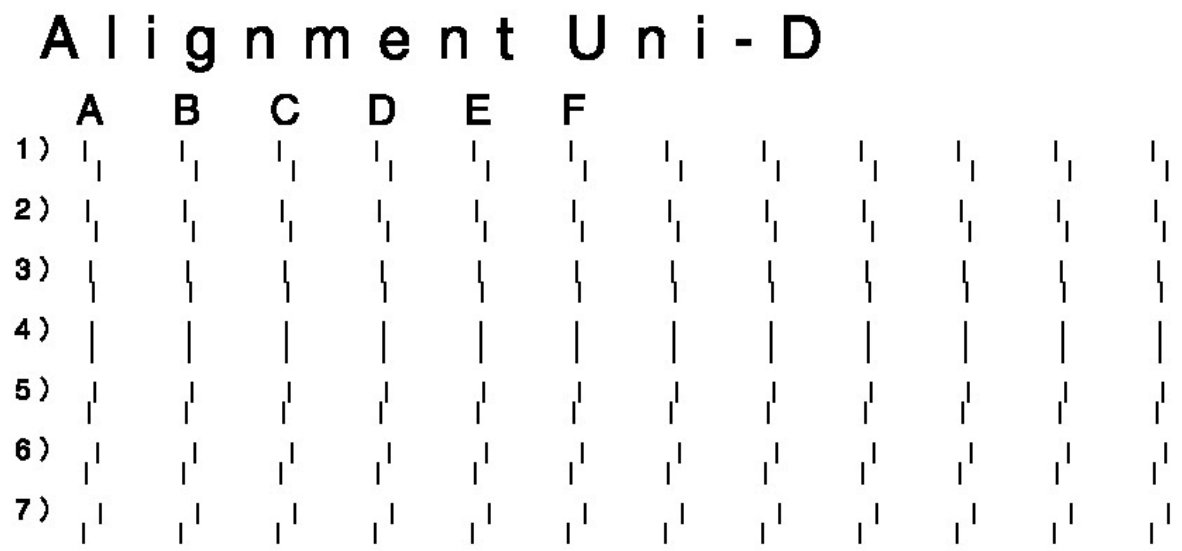
- The print quality of your printer is pre-adjusted when it is shipped. When the installation environment of the printer or media type has been changed and print quality declines, use this alignment function.

To do the Alignment, follow the steps below.

Step 1 : Turn the power of the unit ON, and set the media.

Step 2 : Perform an accuracy adjustment printing for alignment according to "Testprinting".
- When performing uni-directional printing: Alignment (for the uni-direction printing)
- When performing bi-directional printing: Alignment (for the bi-direction printing)

Step 3 : From the "Head A" in the printing sample, select a number in which the straight line appears with the least blur.



Step 4 : Press either the [F2] key or [F4] key to select the number of the line you choose in the previous step.

* HeadA (Uni-D) *		
1 ~ 7	+	← F2
	4 -	← F4
F2, F4	→ ENTER	

Step 5 : Press the [Enter] key on the operation panel to register the setting value of the "Head A".

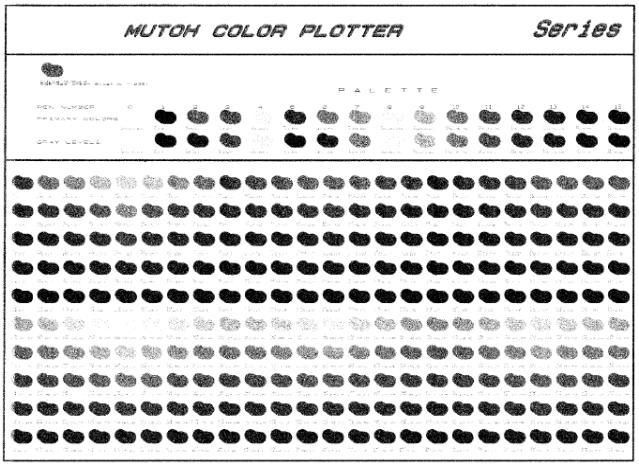
Step 6 : Repeat the steps from 3 to 5 to register all settings followed the "Head A".

4.7.4. Colour palette

Use this function to compare the pen colour settings of the computer with the print colour of the printer.

Notes :

- For printing, refer to the following.
  - Refer to 'Testprinting'



4.7.5. Maintenance record

Use this function to check the life cycles of the printer parts.

Notes :

- A part's life cycle is shown by the amount of the * mark. When a part's life cycle comes to an end, the * mark reduces.
- For printing, refer to the following. 'Testprinting'

```
======= Maintenance Record =======
Version              :  1.00
Ink Cart. 1          : E*****F
Ink Cart. 2          : E*****F
Ink Cart. 3          : E*****F
Ink Cart. 4          : E*****F
Ink Cart. 5          : E*****F
Ink Cart. 6          : E*****F
Ink Cart. 7          : E*****F
Ink Cart. 8          : E*****F
Cutter Life          : E*****F
Page Count           : 1785
Waste Tank           : E*****F
CR Motor Life        : E*****F
PF Motor Life        : E*****F
Wiper Life           : E***  F
```

4.8. CONNECTING THE PRINTER TO YOUR PC

How to connect the printer to your PC.

4.8.1. System requirements

To use your printer with the driver, you need a PC that fulfills the following system requirements.

System OS	Windows 2000 Professional
CPU	Pentium III 1 GHz or higher
Memory (RAM)	512 MB or more
Hard disk space	10 GB or more

Notes :

- The memory requirements may vary depending on the type of applications you are using and the complexity of the document you want to print.
- MUTOH recommends you to use a hard disk and bulk memory as large as possible.

4.8.2. Selecting cables

This printer is compatible with following interfaces:

- Centronics interface
- Network interface

The following cables are necessary to connect your printer to the computer. Prepare appropriate cables according to the computer to be connected.

- Centronics interface: Centronics interface cable
- Network interface: 10BASE-T/100BASE-TX Ethernet cable that is compatible with both. (Category 5)

Notes :

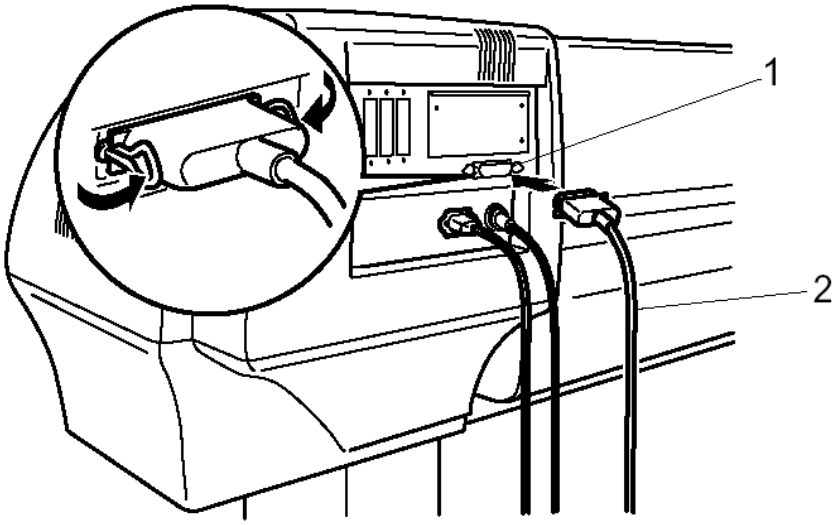
- See below for the connection procedure.
  - Refer to 'Connecting the Centronics interface'
  - Refer to 'Connecting the network interface'
- Refer to "Interface Specifications" for the connection procedure.

4.8.3. Connecting the Centronics interface

The procedure for connecting the Centronics interface is explained below.
To connect the printer to your computer, follow the steps below.

Step 1 : Turn off the printer and your computer.

Step 2 : Plug the cable connector of the interface cable into the interface connector at the back of the printer. Squeeze the wire clips together until they lock into place.



1. Centronics interface connector	2. Interface cable

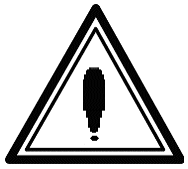
Step 3 : Plug the other end of the cable into the computer's port.

Notes :

- Refer to your computer's manual for the procedure to connect to your computer.

4.8.4. Connecting the network interface

The procedure for connecting the network interface is explained below.
To connect the printer to the network environment, follow the steps below.

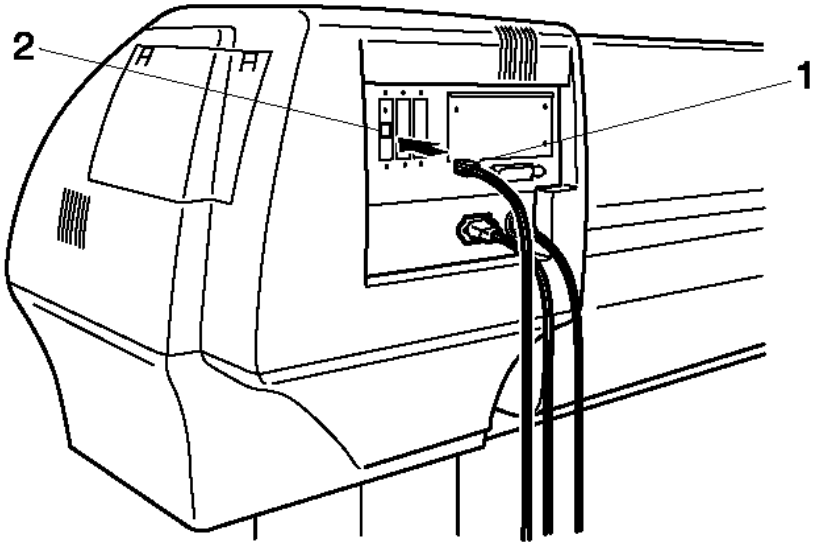


Caution :

- Follow the instructions below when connecting the network interface cable. Otherwise, electrical shock or fire may occur.
  - Do not touch the connector.
  - Do not connect the network cable connector to the interface board having different specifications.

Step 1 : Turn off the printer.

Step 2 : Plug the connector of the Ethernet cable into the connector of the network interface board at the back of the printer.



1. Network interface connector	2. Interface cable

Step 3 : Connect the other end of the Ethernet cable to the network.

Notes :

- Refer to "Network interface board operation manual" to use the network interface board.

5. HANDLING THE PRINTER

5.1. INTRODUCTION

This chapter explains how to handle your printer.

5.2. DRAWING FLOW

The following flow chart illustrates the procedure for drawing with the printer.
Refer to each item as necessary.

1. Make the printing data.
   Make the printing data using an application software

2. Turn on the printer and load media into the printer.
   → Refer to 'Media handling'
   → Refer to 'Using Media'

3. Make the preference setting for drawing with the printer.
   → Refer to 'Menu setup on the operation panel'

4. Start printing.
   → Refer to 'Operating from the operation panel'
   → Refer to 'Operations after printing'

Notes :

- Do not open the front cover during printing. Doing so may stop the printer to draw. Though the printer resumes printing after you close the front cover, the print quality cannot be guaranteed.

5.3. USING MEDIA

This section describes details on available media for the printer.

5.3.1. Media type

The type and quality of the media affect the results of drawing enormously. Refer to the description below and use the appropriate media for your purpose.
The following are the recommended media for the printer. Select the appropriate media for your purpose.

Notes :

- For more information about the recommended media, contact your local MUTOH dealer.
- Problems that occur due to use of media other than those recommended are not guaranteed.

Notes :

- When using recommended media, the setting values for the printing quality is set for each media type.
- When printing on media other than those specified, information regarding proper settings for the media type and settings for the product should be found on the instructions for the media. If not contact the supplier of the media.

5.3.2. Cautions on handling media

When you handle media, please pay attention to the following.

Notes :

- Use recommended media in an appropriate environment. Following are the appropriate temperature and humidity ranges for printing.

	Temperature	Humidity
Recommended working environment	25°C	40% to 60%
Rate of change	Within 2°C per hour	Within 5% per hour

- Do not use creased, damaged, torn, curled, or wrapped media.
- The size of the recommended sheets can change at a fixed ratio according to the temperature changes of the working environment. Before using sheet media, place the sheet in the working environment for at least 30 minutes, to have it match to the temperature of the working area.
- Printing before the media could accommodate to the printing environment may cause media jams due to slippage or creases. This also adversely affects the quality of printing.
- Media has a printable side and a non-printable side. If you print on a not printable side, blurring or slight touching may occur.
- Do not touch the printable side of media. Moisture or oil from hands affects the printing quality.
- Do not leave the printer for a long time with media loaded. The media may curl resulting in misalignment, media jams, or decreased printing quality. In particular, avoid this in winter, dry seasons, or during final printing.
- Do not lose the box or rapping bag for storing media.

5.3.3. Precaution on storing media

When storing media, pay attention to the following.

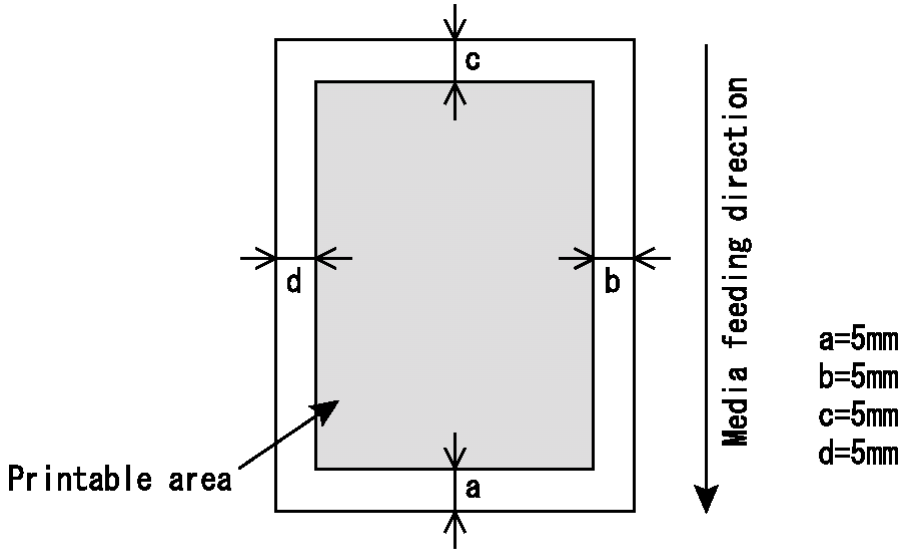
Notes :

- Do not store media in high temperature, high humidity, or direct sunlight.
- Store sheet media in the original bag after unpacking.
- Unused roll media must be removed from the scroller, rewound tightly, and stored in the original wrapping bag and the box.
- Do not wet media.

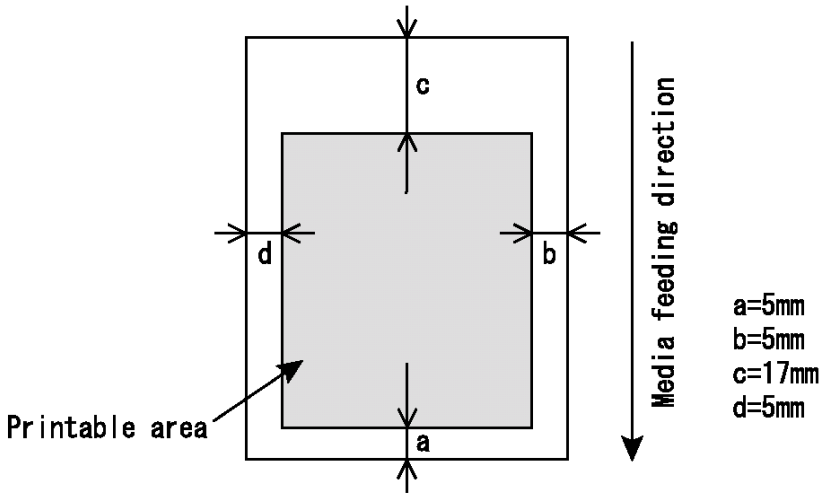
5.3.4. The printing area

The printing area is shown below.

(1) Roll media



(2) Sheet media



5.3.5. Media feed compensation

Depending on the thickness of media, the media feed amount will change. Printing results may show following symptoms:

- Overlapped printing images
- White lines on printing image, etc

For above cases, adjust media feed compensation value with following procedures.

Step 1 : Display Media feed compensation menu on the operation panel by following "Menu setup on the operation panel".

- The following messages are displayed on the operation panel.

F1 →
F3 →

```
* Dist. Adj *
Print 1                Change
Print 2
```

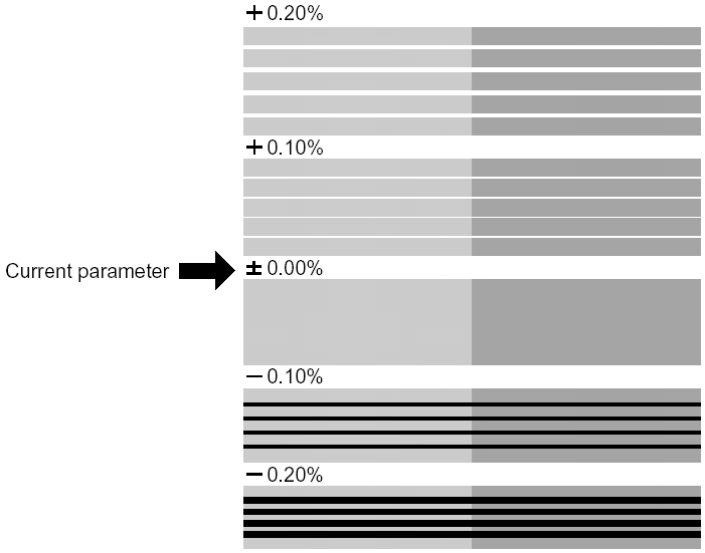
Step 2 : Select an item and press the [F1] or [F3] Key.

Setup items	Key	Parameters	Description
Dist. Adj.	F1	Print 1	Perform printing by media feed compensation at ± 0.10% intervals of setup value from the current parameter.
	F3	Print 2	Perform printing by media feed compensation at ± 0.20% intervals of setup value from the current parameter (for fine adjustment).

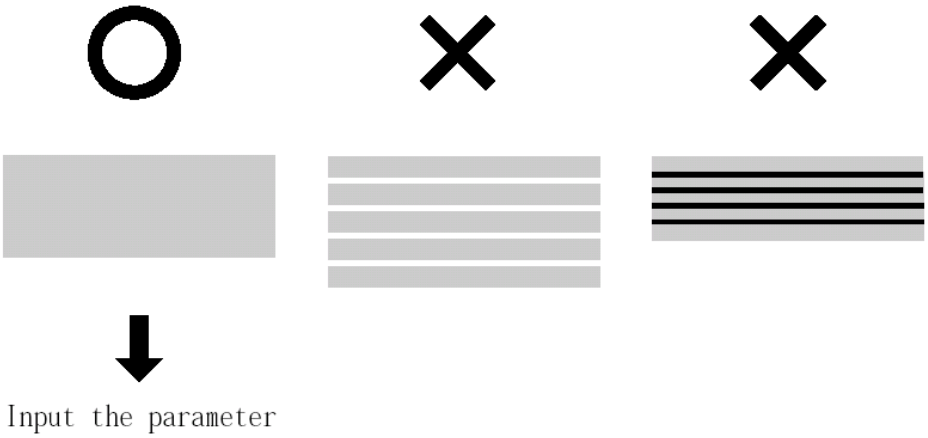
- The following messages are displayed on the operation panel.
- Print the information on the selected menu.

```
* Dist Adj *
Printing

                → CANCEL
```



Step 3 : Confirm printing result by referring to the following figure.



Step 4 : When printing by media feed compensation has been finished, press the [CANCEL] key on the operation panel.

- The following messages are displayed on the operation panel.

* Dist. Adj *	
Print 1 Change	← F2
Print 2	
(1/1)	

Step 5 : Press the [F2] key on the operation panel.

- The following messages are displayed on the operation panel.

* Change *	
90.00 % - 110.00 %	+
110.00%	-
F2, F4 → ENTER	

Step 6 : Press the [F2] or [F4] key on the operation panel to set the media feed compensation value based on the printing result in Step 3.

Step 7 : Press the [ENTER] key on the operation panel to confirm the setup value.

- The operation panel shifts to the menu of the previous hierarchy.

Step 8 : Repeat step 2-7 until good printing result has been obtained.

Important :

- **Some RIP software by default use USER 8 media type. In this case, changing the step adjust value might seem not to have any effect. You can overcome this problem by first selecting USER 8 and then changing the step adjust for USER 8.**

5.3.6. Details about Rockhopper II media

Eco-Solvent Plus Media List

Mutoh offers media specially targeted for outdoor applications, media aimed for indoor applications where long-term indoor lifetime of the output is required and media specially engineered for making colourful banners.
Together with your Rockhopper II series printer, you will receive a sample roll of one of the Mutoh Eco-Solvent Plus media and a CD-ROM containing pre-ripped data, allowing you to test the Eco-Solvent Plus media.
On the CD-rom you will find more information on how to correctly use the Eco-Solvent Plus media.
More media information, media specification sheets and free of charge media profiles for Mutoh's in-the-box software are at all times accessible via Mutoh's website under http://www.mutoh.be

For pricing and availability details, please contact your Mutoh reseller.

5.4. MENU SETUP ON THE OPERATION PANEL

This section describes how to make the Menu settings on the operation panel, and setup items.
Follow the steps below to make the Menu settings.

Step 1 : Make sure that the operation panel is normal.

Ready to print	
Heaters	Cleaning
Cut&Feed	Lever Up
User1	xxxm

Step 2 : Press the [MENU↑] or [MENU↓] key.
- The screen shows following Menu.

Current Setup Menu →	* SetupMenu *		
F1 →	Ink Status	OriginSet	← F2
F3 →	TestPrint	MediaSet	← F4
		(1/7)	

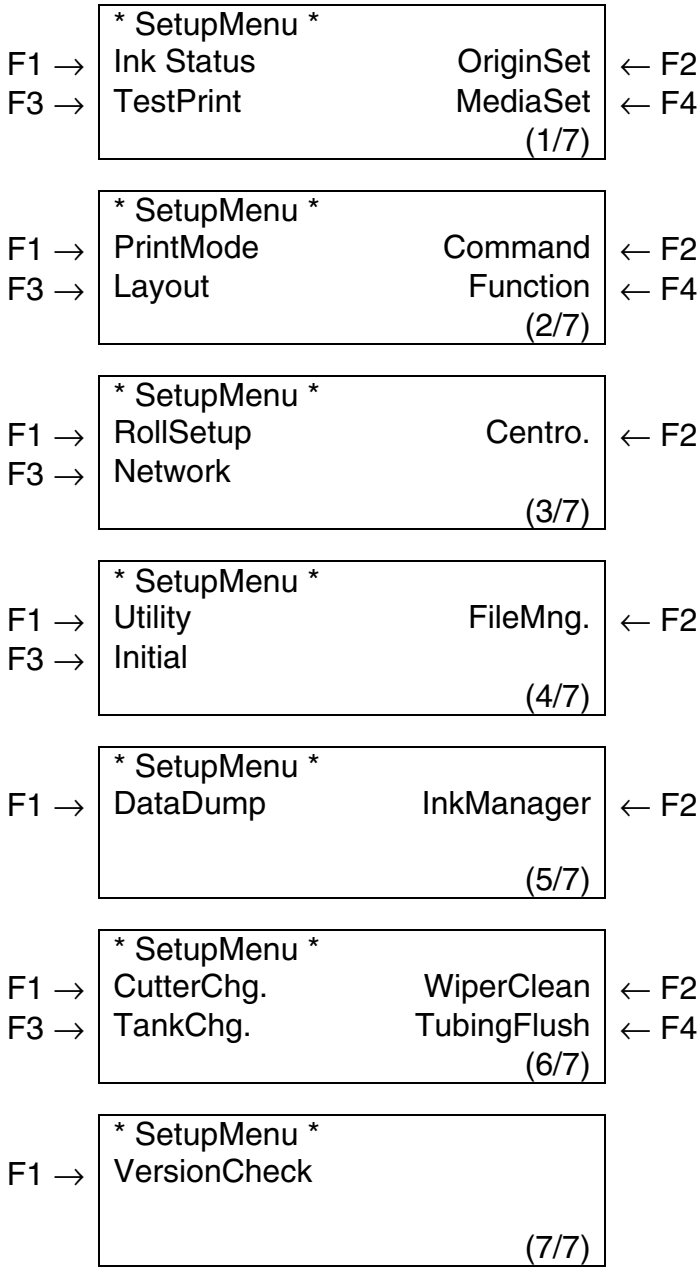
Step 3 : Set the setup menu as follows :
- Refer to 'Setup menu' – 'Tank change menu'

Notes :

- For functions of the operation panel with the setup menu displayed, refer to the following :
  - Operation panel
  - Setting menu display
- For the structure of the setup menu, refer to the following :
  - Setup menu structure
- When page numbers of the setup menu are displayed on the operation panel, you can change the sequence by pressing the [MENU↑] or [MENU↓] key.
- Each table shows the factory default settings.

5.4.1. Setup menu

This section describes each setup menu of the printer.



Notes :

- The Network Settings menu is displayed if the network interface board has been installed on the product.
- The items on the File Management menu are displayed if a hard disk has been installed in the product.

Setup items	Parameters	Description
Setup menu (1/7)	Ink status	Displays the information (ink status) for each ink cassette installed in the ink cassette slot. Refer to 'Ink status menu'
	Origin setting	Sets the printing start position (origin) for printing data. Refer to 'Origin setup menu'
	Test print	Performs test printing. Refer to 'Test print menu'
	Media setting	Makes various media settings. Refer to 'Media setup menu'
Setup menu (2/7)	Print mode setting	Makes various print mode settings. Refer to 'Printing mode menu'
	Command setting	Makes various printer commands settings. Refer to 'Command setup menu'
	Layout setting	Makes various layout function settings. Refer to 'Layout setup menu'
	Function setting	Makes various processing printing data settings. Refer to 'Function setup menu'
Setup menu (3/7)	Roll media setting	Makes various roll media settings. Refer to 'Roll Media setup menu'
	Centronics setting	Sets Centronics Interface communication mode. Refer to 'Centronics menu'
	Network setting	Makes the settings for the network interface. Refer to 'Network setting menu'
Setup menu (4/7)	Utility setting	Makes various advanced function settings. Refer to 'Utility menu'
	File management setting	Makes various settings for the processing method of the printing data sent from computer to the installed hard disk in the printer. Refer to 'File management setup menu'
	Initialize setting	Returns the parameters to factory default value. Refer to 'Initialize setup menu'
Setup menu (5/7)	Data dump	The dump printing for the online feature check will be performed. Refer to 'Data dump menu'
	Ink Manager	Perform 'HeadWash', 'InkChange' or 'InkLoad'. Refer to 'Ink Manager menu'
Setup menu (6/7)	Cutting blade replacement	The cutting blade is replaced. Refer to 'Cutter change menu'
	Wiper cleaning	Clean the wiper. Refer to 'Wiper clean menu'
	Tank replacement	Tank is replaced. Refer to 'Tank change menu'
	Tubing Flush	Makes various tubing flush settings Refer to 'Tubing flush menu"
Setup menu (7/7)	Version Check	Ability to view the installed firmware version. Refer to 'Version Check'
Setup menu (1/7-7/7)	-	[CANCEL] key: Cancel the setup menu, and shift to the normal condition.

Notes :

- By using the software server RIP (option), some setups for printing can be set by the RIP. For details, refer to the operation manual of the products.

5.4.2. Ink status menu

Displays the information (ink status) for each ink cassette installed in the ink cassette slot.

```
* InkStatus *
K :  + 100   C: +100    W : X 100
W : X 100   Y : + 100   M : + 100
C :  + 100   m : + 100        Eco+
```

Setup items	Parameters	Description
Ink Status	Ink status for the ink cassette slots 1 – 8.	• Display ➢ Line 2: ink cassette slots 1 – 3 ➢ Line 3: ink cassette slots 4 – 6 ➢ Line 4: ink cassette slots 7 - 8 • Symbols ➢ Ink Colour: K : Black, C : Cyan, M : Magenta, Y : Yellow, c : Light Cyan, m : Light Magenta, W = Cleaning Liquid ➢ Type of Ink: ▪ ECO + = Eco-Solvent Plus ▪ X = Cleaning Cassette ▪ ECOMIX = Eco-Solvent mixed with Eco-Solvent Plus ➢ Ink Remaining: 0 - 100(%) • mode : in the lower right corner (e.g. Eco+)
	-	[CANCEL] key: shift to the previous hierarchy menu. Refer to 'Setup menu'

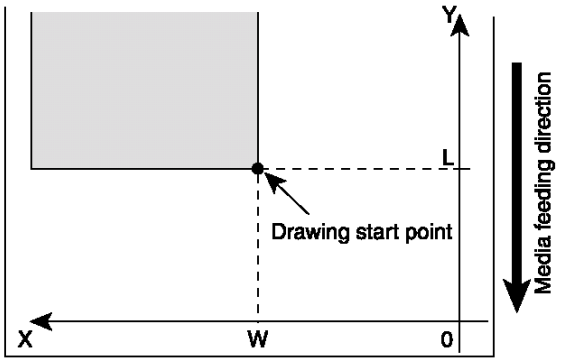
Notes :

- To display the Ink Status menu, be sure to use the recommended ink cassettes. If any other ink cassette is used, the ink status will not be correctly displayed.

5.4.3. Origin setup menu

Sets the printing start position (origin) for printing data.
Set this when you want to re-print to blank area of the printed media by changing the layout of the printing data.

	* Origin *		
F1 →	Forward	Left	← F2
F3 →	Back	Right	← F4
Parameter →	L : 00500.0	W : 01000.0	

Setup items	Parameters	Description
Origin setting	• L: Media feed value • W: Print head movement value (Unit: mm)	Changes the print head position and media feed amount by operating the following keys. • [F1] key: Feeds media forward. • [F2] key: Moves the print head to the left. • [F3] key: Feeds media backward. • [F4] key: Moves the print head to the right. • [ENTER] key: Determines the setup values then returns to the previous hierarchical menu. Refer to 'Setup menu' 
	-	[CANCEL] key: shifts to the previous hierarchy menu. Refer to 'Setup menu'

Notes :

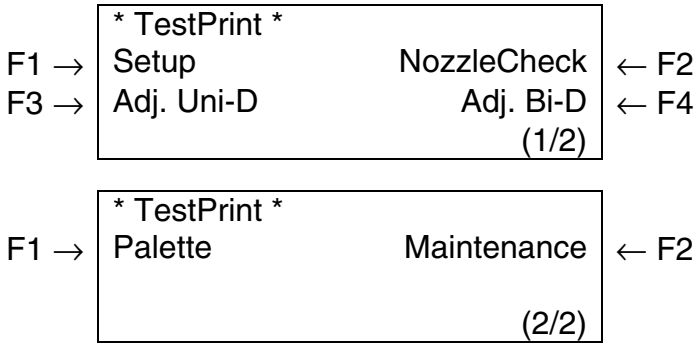
- When printing from the data on the hard disk, the printing will start from the same start position as when the printing data was written, regardless of the home position setting value.

Notes :

- The origin setup menu automatically ends without pressing any key for a certain period, to avoid drying the print head.

5.4.4. Test print menu

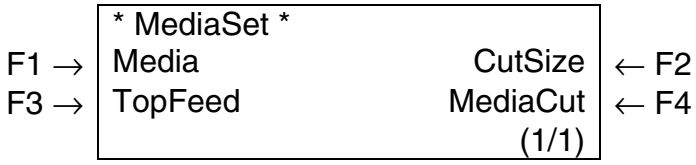
Perform Test print.



Setup items	Parameters	Description
Test print (1/2)	SetupPrint	Performs setup printing. Refer to 'Setup List'
	NozzleCheck	Performs nozzle check printing. Refer to 'NozzleCheck'
	Alignment (UniDir)	Performs accuracy adjustment printing in one direction. Refer to 'Alignment'
	Alignment (BiDir)	Performs accuracy adjustment printing in two directions. Refer to 'Alignment'
Test print (2/2)	Pallet printing	Performs pallet printing. Refer to 'Colour palette'
	Maintenance status	Maintenance status printing is performed. Refer to 'Maintenance record'
Test print (1/2-2/2)	-	[CANCEL] key: shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.5. Media setup menu

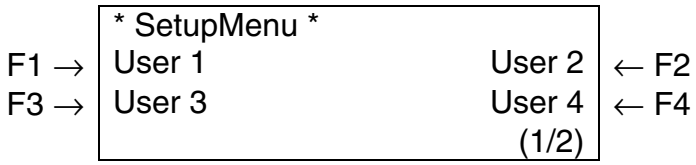
Perform various settings for media.

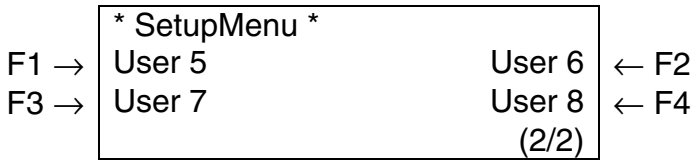


Setup items	Parameters	Description
Media setting	Type	Sets the media type used for test printing. Refer to 'Media type menu'
	Cut size	To set the method for detecting the size of the media when sheet media has been loaded. Refer to 'Cut size menu'
	Top feed	Sets the amount of media to be fed when printing begins. Make this setting when using roll media. Refer to 'Top feed menu'
	Media cutting	The method of cutting the media after printing is set here. Refer to 'Media cut menu'
	-	[CANCEL] key: to shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.6. Media type menu

Set media type for printing.





Setup items	Parameters	Description
Types (1/2)	User media 1	To set the type of media used for printing. For setup values of printing operation, eight settings of "user media 1-8" can be set. Refer to 'User media menu'
	User media 2	
	User media 3	
	User media 4	
Types (2/2)	User media 5	
	User media 6	
	User media 7	
	User media 8	
Type (1/2-2/2)	-	[CANCEL] key: to shift to the previous hierarchy menu. Refer to 'Media setup menu'

5.4.7. User media menu

Makes various settings on user defined media.
In the User media menu, for each setup value of following printing operation, eight settings of "user media 1-8" can be set.

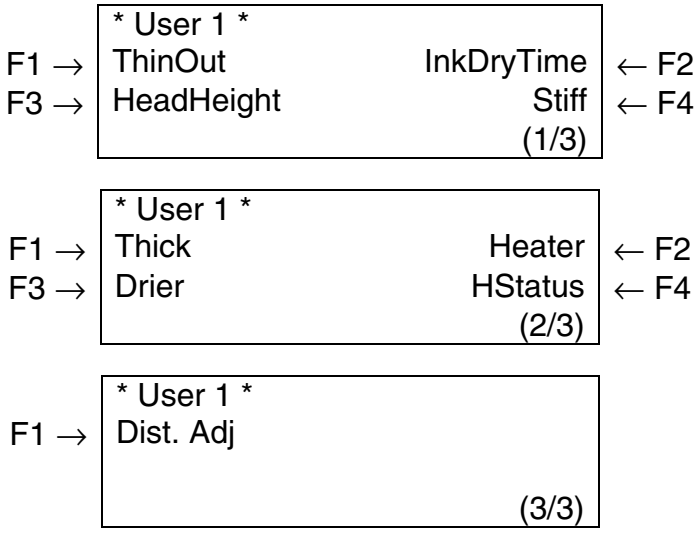
Notes :

When media other than the recommended media are used (user media), the following problems may occur :

- Media detection error
- Oblique, torn, and creased media
- Media jams
- Decrease in print quality due to blurring, missing, or smudging of ink
- End detection error of roll media

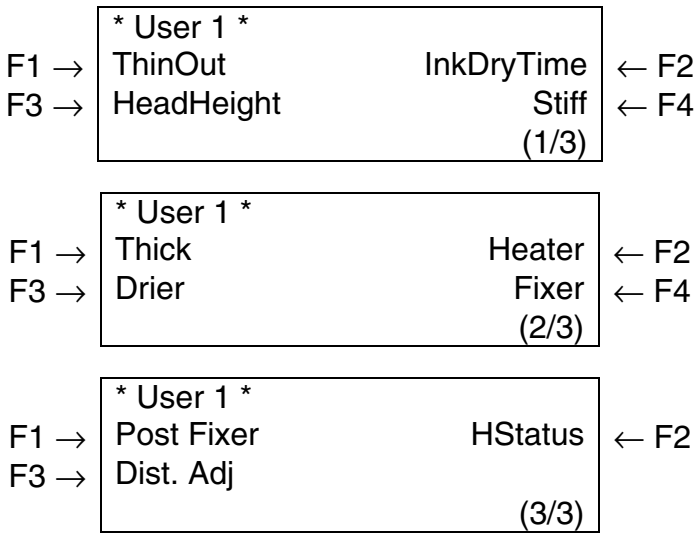
Problems caused by using media other than the recommended will void the warranty. For more information, contact your local MUTOH dealer.

5.4.7.1. User media menu Rockhopper II



Setup items	Parameters	Description
User media 1-8 (1/3)	Amount of ink	Sets the amount of ink discharged while printing according to the media type. → Refer to 'Ink amount menu'
	InkDryTime	In order to let the ink for the printing dry, the time between the end of the print and the beginning of the next print is set. → Refer to 'InkDry menu'
	HeadHeight	Sets the distance (head height) between the print head and the media. → Refer to 'Head Height menu'
	Stiff	Makes the setting for the absorbing power of the media to the printing board depending on the hardness of the media. → Refer to 'Stiff menu'
User media 1-8 (2/3)	Thickness	Makes the setting on the width of the media to be used. → Refer to 'Thickness menu'
	Heater	Sets the temperature of the Heater. → Refer to 'Heater Menu'
	Drier	Sets the temperature of the Drier. → Refer to 'Drier Menu'
	HStatus	Checks the temperature of Heater and Drier. → Refer to 'HStatus Menu'
User media 1-8 (3/3)	Dist.Adj	Performs various settings for media feed compensation. → Refer to 'Media feed compensation menu'

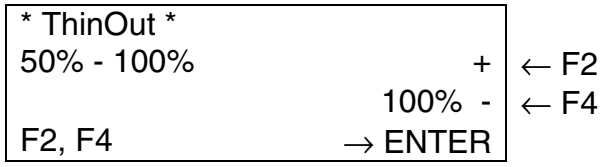
5.4.7.2. User media menu Rockhopper II 4H



Setup items	Parameters	Description
User media 1-8 (1/3)	Amount of ink	Sets the amount of ink discharged while printing according to the media type. → Refer to 'Ink amount menu'
	InkDryTime	In order to let the ink for the printing dry, the time between the end of the print and the beginning of the next print is set. → Refer to 'InkDry menu'
	HeadHeight	Sets the distance (head height) between the print head and the media. → Refer to 'Head Height menu'
	Stiff	Makes the setting for the absorbing power of the media to the printing board depending on the hardness of the media. → Refer to 'Stiff menu'
User media 1-8 (2/3)	Thickness	Makes the setting on the width of the media to be used. → Refer to 'Thickness menu'
	Heater	Sets the temperature of the Heater. → Refer to 'Heater Menu'
	Drier	Sets the temperature of the Drier. → Refer to 'Drier Menu'
	Fixer	Sets the temperature of the Drier. → Refer to 'Fixer Menu'
User media 1-8 (3/3)	Post Fixer	Sets the temperature of the Drier. → Refer to 'Post Fixer Menu'
	HStatus	Checks the temperature of heating elements. → Refer to 'HStatus Menu'
	Dist.Adj	Performs various settings for media feed compensation. → Refer to 'Media feed compensation menu'

5.4.8. Thin Out: Ink amount menu

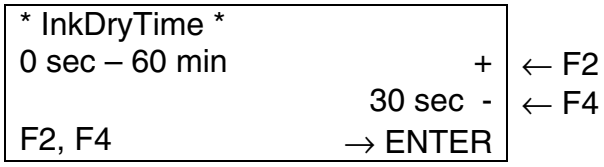
Sets the amount of ink discharged while printing, according to the media type.



Setup items	Parameters	Description
Amount of ink	50 %-< 100%>	Use the following keys to change the amount of ink. • [F2] key: Increases the setting value. • [F4] key: Reduces the setting value. • [ENTER] key: Sets the setting value, and moves the screen to the menu of the previous hierarchy. • [CANCEL] key: Cancels the setting value, and moves the screen to the menu of the previous hierarchy. Refer to 'User media menu'

5.4.9. InkDry menu

Sets the waiting period between the end of operation and the start of next printing in order to let the printed media dry.



Setup items	Parameters	Description
InkDryTime	0 to <30 sec. > to 270 sec. to 60 min.	To change the InkDryTime by operating the following keys. • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value. • [ENTER] key: Confirms the setup value, shifts to the previous hierarchy menu. • [CANCEL] key: Cancels the setup value, shifts to the previous hierarchy menu. Refer to 'User media menu'

5.4.10. Head Height menu

Sets the distance (head height) between the print head and the media.
Head height can be changed to three levels according to media thickness.

	* HeadHeight *	
F1 →	Low	Middle ← F2
F3 →	High	
Current parameter →	- low -	(1/1)

Setup items	Parameters	Description
HeadHeight	Low	Make this setting when using media with a thickness of 80µm (0.08mm) to 300µm (0.3mm).
	Middle	Make this setting when using media with a thickness of 300µm (0.3mm) to 700µm (0.7mm).
	High	Make this setting when using media with a thickness of 700µm (0.7mm) to 1000µm (1.0mm).
	-	Refer to 'User media menu'

Notes :

- Set the height of the head in relation to the thickness of the media.
  - If the setting is set to "High" and the print is created on thin media, good quality print results will not be achieved.
  - If the setting is set to "Low" and thick media is used, the media and print head will come into contact and may result in damage to the product.

5.4.11. Stiff menu

Sets the media sticking force (media stiffness) to the media guide.

	* Stiff *	
F1 →	Soft	Normal ← F2
Current parameter →	- Normal -	(1/1)

Setup items	Parameters	Description
Stiff	<Normal>	Setting for normal media
	Soft	Setting for soft media where media feeding errors and media jams occur
	-	After setting, shift to the previous hierarchy menu. Refer to 'User media menu'

5.4.12. Thickness menu

Sets the media thickness.

* Thick *		
50 µm – 1500 µm	+	← F2
	100 µm -	← F4
F2, F4	→ ENTER	

Setup items	Parameters	Description
Thickness	50µm-<100µm>-1500µm	Change media thickness by operating the following keys. • [F2] key: to increase the setup value. • [F4] key: to decrease the setup value. • [ENTER] key: to confirm the setup value and to shift to the previous hierarchy menu. • [CANCEL] key: to cancel the setup value and to shift to the previous hierarchy menu. Refer to 'User media menu'

5.4.13. Heater menu

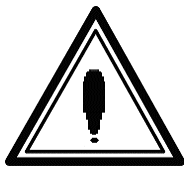
Sets the temperature of the Heater.

* Heater (A) *		
OFF – 50°C	+	← F2
	50°C -	← F4
F2, F4	→ ENTER	

Use the [F2] or [F4] key to select the requested temperature for the Heater.

Notes :

- The default setting for the heater is set to '50°C'.
- The function of the heater (A) : Warming the transfer paper before entering the pressure rollers. The pre-expansion helps to minimize media cockling.



Caution :

- We recommend you to set the pre-heater temperature at 50°C. This to be sure that transfer paper is already expanded a little before reaching the pressure rollers.

5.4.14. Drier menu

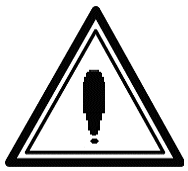
Set the temperature of the Drier.

* Drier (D) *		
OFF – 50°C	+	← F2
	50°C -	← F4
F2, F4	→ ENTER	

Use the [F2] or [F4] key to select the requested temperature for the Drier.

Notes :

- The default setting for the drier is set to '50°C'.
- The function of the drier (D) : Heating the printed transfer paper evaporates the water fast enough so that the print is touch-dry when wound.



Caution :

- We recommend you to set the dryer temperature at 50°C. This to be sure that transfer paper is touch-dry when wound.

5.4.15. Fixer menu

Set the temperature of the Fixer.

Notes :

Please note that this heating element is only available onto the Rockhopper II 4H series printer.

* Fixer (B) *		
OFF – 70°C	+	← F2
	70°C -	← F4
F2, F4	→ ENTER	

Use the [F2] or [F4] key to select the requested temperature for the Fixer.

5.4.16. Post Fixer menu

Set the temperature of the Post Fixer.

Notes :

Please note that this heating element is only available onto the Rockhopper II 4H series printer.

* Post Fixer (C) *		
OFF – 70°C	+	← F2
	70°C -	← F4
F2, F4	→ ENTER	

Use the [F2] or [F4] key to select the requested temperature for the Post Fixer.

5.4.17. HStatus menu Rockhopper II

Check the temperature of the heating elements.

Notes :

Please note that this heating element is only available onto the Rockhopper II series printer.

* HStatus *
A: 27 D : 29
Heating NOT Ready

Notes :

A stands for the Heater.
D stands for the Dryer.

Press the [CANCEL] key to go to the previous menu.

5.4.18. HStatus menu Rockhopper II 4H

Check the temperature of the heating elements.

Notes :

Please note that this heating element is only available onto the Rockhopper II 4H series printer.

```
* HStatus *
A: 49    B: 26    C: 27    D : 49
Heating NOT Ready
```

Notes :

A stands for the Heater.
B stands for the Fixer.
C stands for the Post Fixer.
D stands for the Dryer.

Press the [CANCEL] key to go to the previous menu.

5.4.19. Media feed compensation menu

To perform various settings for media feed compensation

Notes :

- For details of the media feed compensation, refer to "Media feed compensation".

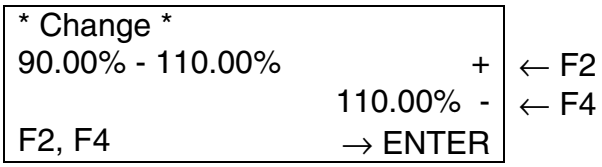
```
F1 →  * Dist. Adj *
F3 →  Print 1                Change  ← F2
      Print 2
                             (1/1)
```

Setup items	Parameters	Description
Dist.Adj	Print1	Performs printing by media feed compensation. A correction pattern with a width of ± 0.20% (in steps of 0.10 %) is printed around the center of the correction value currently set. Refer to 'Printing by Media feed compensation menu'
	Change	Changes the media feed compensation value. The menu changes to the Change Media Feed Correction Value menu. Refer to 'Change media feed compensation value menu'

	Print2	Performs printing by media feed compensation (for fine adjustment). A correction pattern with a width of ± 0.02% (in steps of 0.01%) is printed around the center of the correction value currently set. Refer to 'Printing by Media feed compensation menu'
	-	[CANCEL] key: Shifts to the previous hierarchy menu. Refer to 'User media menu'

5.4.20. Change media feed compensation value menu

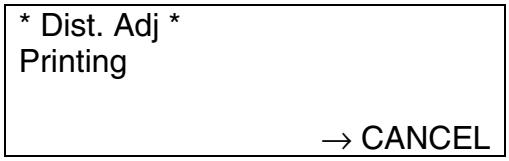
Changes the media feed compensation value.



Setup items	Parameters	Description
Change	90.00%-<100.00%>-110.00%	Changes the media feed compensation value by operating the following keys. • [F2] key: to increase the setup value. • [F4] key: to decrease setup value. • [ENTER] key: Confirm setup value, shift to the previous hierarchy menu. • [CANCEL] key: Cancel setup value, shift to the previous hierarchy menu. Refer to 'Media feed compensation menu'

5.4.21. Printing by Media feed compensation menu

Performs printing by media feed compensation.



Setup items	Parameters	Description
Dist.Adj	Data printing	Now printing by media feed compensation. Wait for a while until printing has been finished.
	-	• [CANCEL] key: to perform following operations : • Media feed correction printing has been finished. • to eject media. • to shift to the previous hierarchy menu. Refer to 'Media feed compensation menu'

5.4.22. Cut size menu

When setting sheet media in the tray, set the method for detecting the size of the media.

	* CutSize *	
F1 →	Auto Length	← F2
F3 →	Width	
Current parameter →	- Length - (1/1)	

Setup items	Parameters	Description
Cut Size	<Auto>	The length and width of the sheet media is automatically detected.
	Length	Make this setting when placing normal size sheet media vertically on the tray.
	Width	Make this setting when placing normal size sheet media horizontally on the tray.
	-	After setting, shift to the previous hierarchy menu. Refer to 'Media setup menu'

Notes :

- When using sheet media other than recommended media, set to "blank form vertical" or "blank form horizontal".
- The following size of sheet media can be set.
  - ISO series (A0, A1, A2, A3, A4)
  - JIS series (B1, B2, B3, B4)
  - ARCH series (A, B, C, D)

5.4.23. Top feed menu

Sets the amount of media to be fed when printing begins. Make this setting when using roll media.

* TopFeed *	
0 mm – 400 mm +	← F2
0 mm -	← F4
F2, F4 → ENTER	

Setup items	Parameters	Description
Top feed	<0mm>-400mm	To feed media at the start of printing. Set when printing on roll media. • "F2" key: Increases the setting value. • "F4" key: Reduces the setting value. • "ENTER" key: Sets the setting value, and moves the screen to the menu of the previous hierarchy. • [CANCEL] key: Cancels the setup value and shifts to the previous hierarchy menu. Refer to 'Media setup menu'

5.4.24. Media cut menu

Set media cut method after printing.

	* MediaCut *	
F1 →	Off	Auto ← F2
F3 →	Manual	
Current Parameter →	- Auto -	(1/1)

Setup items	Parameters	Description
Media cutting	Auto	After printing has been completed, the media is sent to the media cut position and is automatically cut. Refer to 'Cutting media'
	Manual	Feed media to the media cut position after printing. Use regular cutting blades available from hardware stores. Refer to 'Media cutting procedure'
	Off	No media feed after printing.
	-	When "ALL" is selected, proceed to the Shortest Cut Length menu. Refer to 'Shortest cut menu' • If "Manual" or "Off" has been selected, the screen changes to the menu of the previous hierarchy. Refer to 'Media setup menu'

Notes :

- For the situations shown below, the media cut settings are always changed to "Off" regardless the previous settings.
  - When "Take-up system" or "Roll-up/roll off system" is set for the media detection settings (Media detection menu)
- When using the media shown below, set the media cut setting to "Manual". If set to "Auto", the following errors may occur :
  - Cloth material: The cloth fiber is not completely cut.
  - Media with glue: Glue will adhere to the cutting blade and decrease cutting performance.

5.4.25. Shortest cut menu

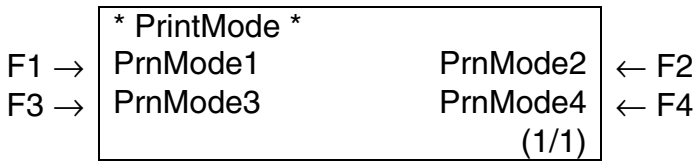
To set the minimum page length for cutting media. (Only in the "Media Cutting → Auto"-menu available)

* ShortestCutPaper *	
100 mm – 700 mm	+ ← F2
	100 mm - ← F4
F2, F4	→ ENTER

Setup items	Parameters	Description
Shortest Cut Paper	<100mm>-700mm	To set the shortest length of the media when cutting • [F2] key : Increases the setting value. • [F4] key : Reduces the setting value. • [ENTER] key : Sets the setting value, and moves the screen to the menu of the previous hierarchy. • [CANCEL] key: Cancels the setup value, shift to the previous hierarchy menu. Refer to 'Media setup menu'

5.4.26. Printing mode menu

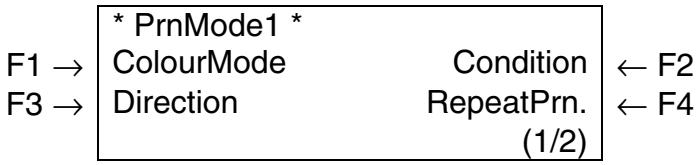
To perform various settings for Printing mode.

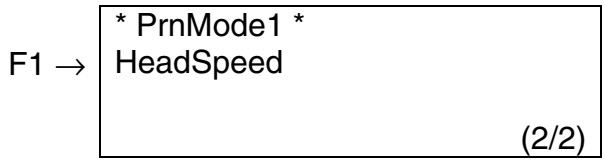


Setup items	Parameters	Description
Print mode setup	Print mode 1	For each setup value of Printing mode, four settings of "Printing mode 1" - "Printing mode 4" can be set. Refer to 'Printing mode setup menu'
	Print mode 2	
	Print mode 3	
	Print mode 4	
	-	[CANCEL] key: to shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.27. Printing mode setup menu

To perform various settings for Printing mode.
For each setup value of Printing mode, four settings of "Printing mode 1" - "Printing mode 4" can be set.





Setup items	Parameters	Description
Printing mode 1-4 (1/2)	Colour mode	To set the number of colours used for printing. Refer to 'Colour mode menu'
	Printing condition	To set printing quality. Refer to 'Printing quality menu'
	Printing direction	To set print head moving direction for printing. Refer to 'Printing direction menu'
	Repeat printing	To make settings for the repeat print. Refer to 'Repeat printing menu'
Printing mode 1-4 (2/2)	Head speed	To set the head speed Refer to 'Head speed menu'
Printing mode 1-4	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.28. Colour mode menu

To check the current ink cassette colour mode.
[CANCEL] key: to shift to the previous hierarchy menu.

Please find below an example.

```
* ColorMode *
6 Col. LcLm

- 6 Col. LcLm -          (1/1)
```

5.4.29. Printing quality menu

To set printing quality.
Select printing quality with consideration to applications of printing data and printing speed.

```
                    * Condition *
F1 →                360 x 360          720 x 360   ← F2
F3 →                360 x 720          Diag720     ← F4
Current parameter → - 360 x 360 -          (1/4)
```

```
                    * Condition *
F1 →                720 x 720          1080 x 1080 ← F2
F3 →                1440 x 720         720 x 1440  ← F4
Current parameter → - 360 x 360 -          (2/4)
```

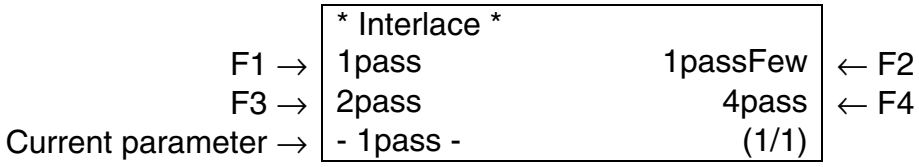
```
                    * Condition *
F1 →                Diag1440           1440 x 1440 ← F2
F3 →                2160 x 1080        1080 x 2160 ← F4
Current parameter → - 360 x 360 -          (3/4)
```

```
                    * Condition *
F1 →                Diag2160           2880 x 1440 ← F2
F3 →                1440 x 2880        Diag2880    ← F4
Current parameter → - 360 x 360 -          (4/4)
```

Setup items	Parameters	Description
Condition (1/4)	<360 × 360dpi>	The display changes to interlace setup items after the print quality items settings have been finished. Refer to 'InterLace Setup menu'
	720 × 360dpi	
	360 × 720dpi	
	Diagonal 720dpi	
Condition (2/4)	720 × 720dpi	
	1080 × 1080dpi	
	1440 × 720dpi	
	720 × 1440dpi	
Condition (3/4)	Diagonal 1440dpi	
	1440 × 1440dpi	
	2160 × 1080dpi	
	1080 × 2160dpi	
Condition (4/4)	Diagonal 2160dpi	
	2880 × 1440dpi	
	1440 × 2880dpi	
	Diagonal 2880dpi	
Condition (1/4 – 4/4)	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Printing mode setup menu'

5.4.30. InterLace Setup menu

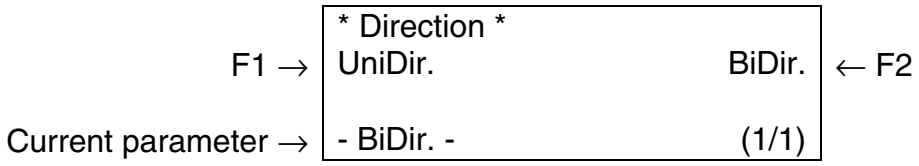
To set the over printing method (interlace method) for printing.



Setup items	Parameters	Description
Interlace method	1 pass	Over printing is not performed.
	1 pass Few	Only gaps between lines are overwritten.
	2 pass	Over-printing is performed twice per 1 line.
	4 pass	Over-printing is performed four times per 1 line.
	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.31. Printing direction menu

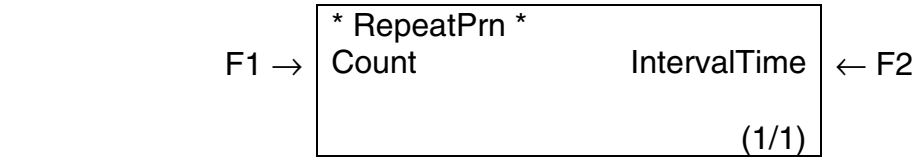
To set print head moving direction for printing.



Setup items	Parameters	Description
Direction	UniDir	Prints in one direction.
	BiDir	Prints bi-directionally.
	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.32. Repeat printing menu

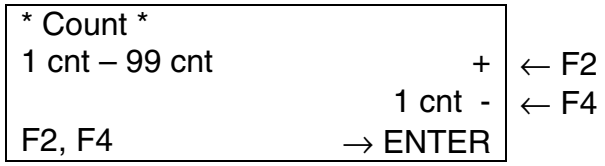
To make settings for the repeat print.



Setup items	Parameters	Description
Repeat	Times	To set the number of repeats per line of printing. Refer to 'Repeat times menu'
	Interval	To set interval time for the repeat print. Refer to 'Interval time menu'
	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.33. Repeat times menu

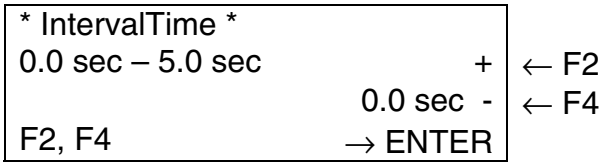
To set the number of repeats per line of printing.



Setup items	Parameters	Description
Times	<Once> to 99 times	To change repeat times by operating the following keys: • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value. • [ENTER] key: To confirm the setup value, to shift to the previous hierarchy menu. • [CANCEL] key: To cancel setup value, to shift to the previous hierarchy menu. Refer to 'Repeat printing menu'

5.4.34. Interval time menu

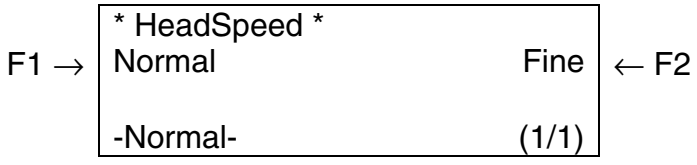
To set interval time for the repeat print.



Setup items	Parameters	Description
Interval	<0.0 sec.> to 0.1 to 5.0 sec.	To change interval time by operating the following keys. • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value. • [ENTER] key: Confirms the setup value, shift to the previous hierarchy menu. • [CANCEL] key: Cancels the setup value, shifts to the previous hierarchy menu. Refer to 'To repeat the printing menu'

5.4.35. Head speed menu

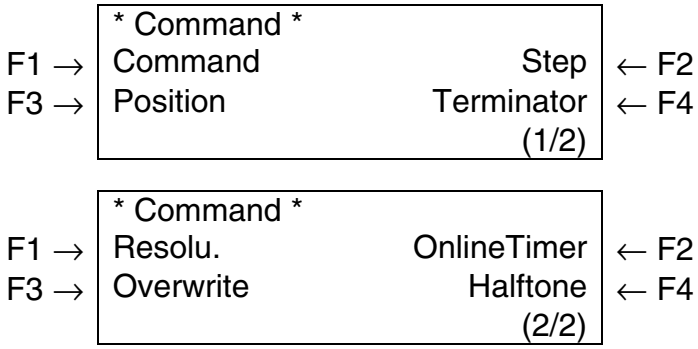
To set the head speed



Setup items	Parameters	Description
HeadSpeed	Normal	Print at normal speed
	Fine	Print at half speed.
	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.36. Command setup menu

To perform various settings for printer commands.



Setup items	Parameters	Description
Command setup (1/2)	Command	To make the settings for the conditions of printer commands sent from the computer to the product. Refer to 'Command select menu'
	Step	To set the units for amount of movement for printing. Refer to 'Print step menu'
	Position	To set the initial writing position for printing. Refer to 'Print position menu'
	Terminator	To set the functions for when printing has been completed for printer commands included in printing data. Refer to 'Terminator menu'
Command setup (2/2)	ImageResolu	Makes settings for image resolution while printing with image data. Refer to 'Image resolution menu'
	OnlineTimer	Makes settings for the time between the end of receiving printing data from a computer and recognizing the end of printing data. Refer to 'Online time out menu'
	Overwrite	Sets the printing method for areas where figures overlap on the printing data. Refer to 'Overwrite menu'
	Halftone	When creating prints of MH-GL/GL2 (vector) data and RTLPASS (raster) data that have not been converted into binary, set the gradation sequence representation method. Refer to 'Halftone menu'
Command setup (1/2-2/2)	-	[CANCEL] key: to shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.37. Command select menu

To make the settings for the conditions of printer commands sent from the computer to the printer.

	* Command *	
F1 →	ML – GL. GL2	ML – GL2 ← F2
F3 →	RTL – PASS	
Current parameter →	- RTL –PASS -	(1/1)

Setup items	Parameters	Description
Command	MH-GL, GL2	To set to MH-GL, GL2.
	MH-GL2	To set to MH- GL2.
	<RTL-PASS>	To set to RTL-PASS.
	-	To shift to the previous hierarchy menu. Refer to 'Command setup menu'

5.4.38. Print step menu

To set the units for amount of movement for printing.

	* Step *	
F1 →	0.010 mm	0.025 mm ← F2
Current parameter →	- 0.010 mm -	(1/1)

Setup items	Parameters	Description
Print step	<0.010mm>	To set the printing units to 0.010mm.
	<0.025mm>	To set the printing units to 0.025mm.
	-	To shift to the previous hierarchy menu. Refer to 'Command setup menu'

Notes :

Please note that some software packages use the "**step per mm"** terminology, in which case a program step of 0.025 mm corresponds with 40 steps per mm and a program step of 0.010 mm with 100 steps per mm.

5.4.39. Print position menu

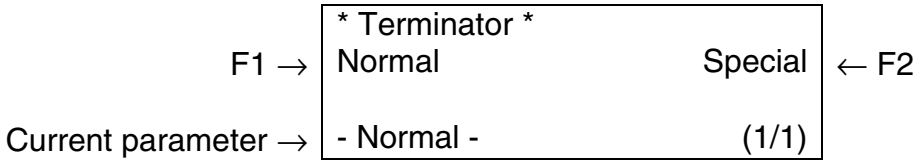
To set the initial writing position for printing.

	* Position *	
F1 →	P1	LL ← F2
F3 →	Full	
Current parameter →	- P1 -	(1/1)

Setup items	Parameters	Description
Print position	<P1>	To set the initial location of the scaling point.
	LL	To set the lower left position of the hard clip.
	Full	To set the lower left position of the media.
	-	To shift to the previous hierarchy menu. Refer to 'setup menu'

5.4.40. Terminator menu

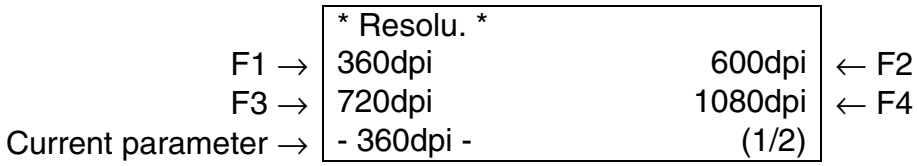
To set the functions for when printing is complete for printer commands included in printing data.

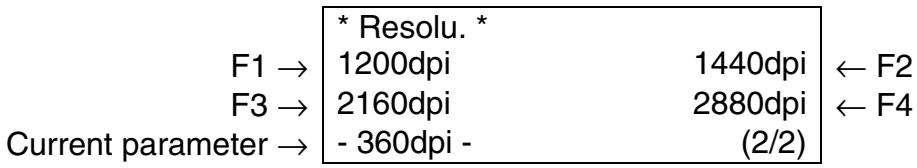


Setup items	Parameters	Description
Terminator	Normal	This is used only for printer command functions.
	<Special>	The SP0 ;(SP ;) command is recognized as the end of the data.
	-	To shift to the previous hierarchy menu. Refer to 'Command setup menu'

5.4.41. Image resolution menu

To set resolution for image data for printing.

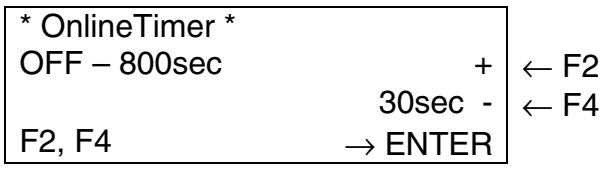




Setup items	Parameters	Description
Image resolution (1/2)	<360dpi>	Makes settings for image resolution while printing with image data.
	600dpi	
	720dpi	
	1080dpi	
Image resolution (2/2)	1200dpi	
	1440dpi	
	2160dpi	
	2880dpi	
Image resolution (1/2-2/2)	-	To shift to the previous hierarchy menu. Refer to 'Command setup menu'

5.4.42. Online time out menu

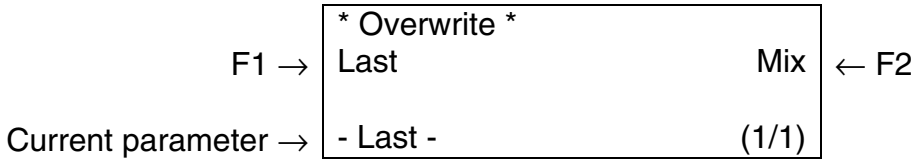
To set time from the moment of receiving termination of printing data sent by computer to the recognition of end of printing data.



Setup items	Parameters	Description
OnlineTimer	OFF/2sec. - <30sec.> -800sec.	To change the Online time out time by operating the following keys. • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value. • [ENTER] key: Confirms the setup value, shifts to the previous hierarchy menu. • [CANCEL] key: Cancels the setup value, shifts to the previous hierarchy menu. Refer to 'Command setup menu'

5.4.43. Overwrite menu

To set the printing method for areas where figures overlap on the printing data.



Setup items	Parameters	Description
Overwrite	<Last>	The colour of the print created afterward is given priority.
	Mix	The colours of overlapping areas are mixed and printed.
	-	To shift to the previous hierarchy menu. Refer to 'Command setup menu'

5.4.44. Halftone menu

When creating prints of MH-GL/GL2 (vector) data and RTL-PASS (raster) data that has not been converted into binary, to set the gradation sequence representation method.

F1 → / F3 → / Current parameter →

```
* Halftone. *
Speed                Quality
Thin
- Speed -              (1/1)
```

← F2

Setup items	Parameters	Description
Halftone	<Speed>	To use the error diffusion matrix to perform rapid gradation representation.
	Quality	Gradation representation is performed at high quality according to the method of minimal average error.
	Thin	When printing data created for a competitor's printer, make this setting if the "Speed" setting could result in dark prints.
	-	To shift to the previous hierarchy menu. Refer to 'Command setup menu'

5.4.45. Layout setup menu

Makes various settings on layout function.

Notes :

- The layout function automatically determines the size of printing data sent from the computer, and then determines the amount of roll media required without wasting media.
- If sheet media has been loaded, the layout function is disabled.

F1 → / F3 →

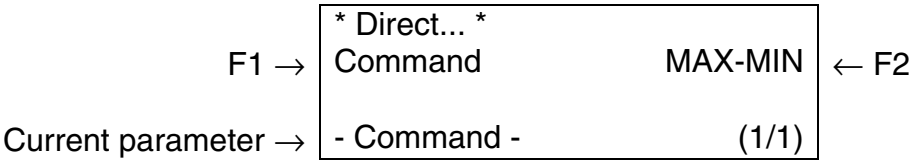
```
* Layout. *
Direct.              Joint
CtPos.
                      (1/1)
```

← F2

Setup items	Parameters	Description
Layout	Direct	To set the layout method for printing data. Refer to 'Layout method menu'
	Joint	Makes settings for stitching print. Refer to 'Joint printing menu'
	CtPos	To set the media cutting position after printing has been completed. Refer to 'Cutting position Menu'
	-	[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.46. Layout method menu

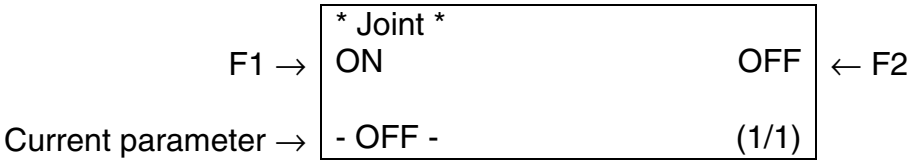
To set the layout method for printing data.



Setup items	Parameters	Description
Layout method	<Command>	If there is a page size specification command for the printing data, the media size is determined from the region specified by the page size specification command to position the data.
	MAX-MIN	Regardless origin and page size specification commands, the media size on which data is collected is determined by the maximum and minimum values of the actual data, and the data is located so that the center of the region is the same as the center of the media.
	-	To shift to the previous hierarchy menu. Refer to 'Layout setup menu'

5.4.47. Joint printing menu

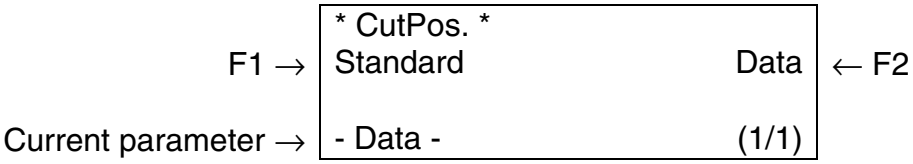
To set joint printing.



Setup items	Parameters	Description
Joint	<Off>	Does not perform stitching print.
	On	Performs stitching print
	-	- Shifts to the previous hierarchy menu. Refer to 'Layout setup menu'

5.4.48. Cutting position Menu

To set the media cutting position after printing has been finished.



Setup items	Parameters	Description
Cutting position	Standard	To cut the media to fit the media width, so that it meets the regulated size.
	<Data>	To cut the media according to the size of the printing data.
	-	- Shifts to the previous hierarchy menu. Refer to 'Layout setup menu'

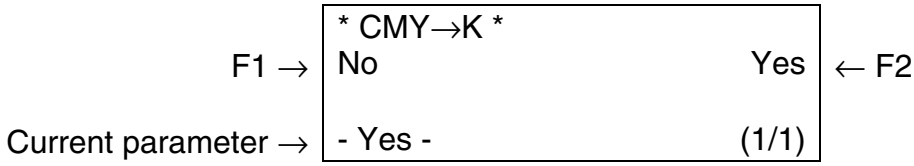
5.4.49. Function setup menu

To perform various settings for processing of printing data.

Setup items	Parameters	Description
Function setup	CMY→K	Makes settings for printing method to present black. Refer to 'CMY→K menu'
	Scale	Sets the enlargement and reduction ratios for printing data. Refer to 'Scale menu'
	Mirror	To draw reversed printing data. Refer to 'Mirror menu'
	-	• [CANCEL] key: Shifts to the previous hierarchy menu. Refer to 'Setup menu'

5.4.50. CMY → K menu

To set how to draw black.



Setup items	Parameters	Description
CMY→K	<No>	• If MH-GL, GL2 are set on the Command Settings menu, be sure to use CMY (mixed colours) ink. • If RTL-PASS is set, use both CMY (mixed colours) ink and K (black) ink.
	Yes	Always use K (black) ink.
	-	To shift to the previous hierarchy menu. Refer to 'Function setup menu'

5.4.51. Scale menu

To set the enlargement and reduction ratios for printing data.

```
* Scale *
25% - 400%                    +   ← F2
                          100%  -   ← F4
F2, F4                  → ENTER
```

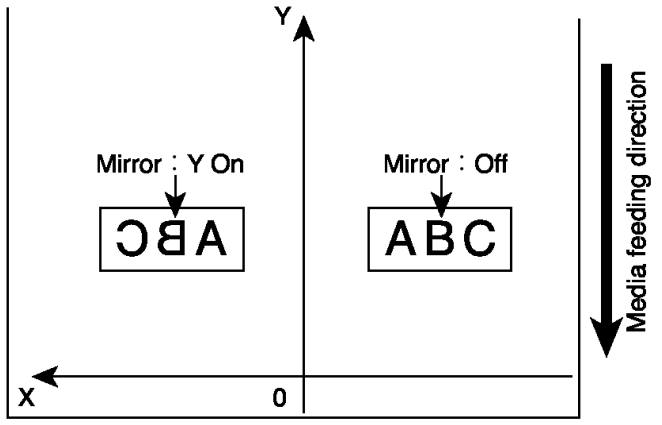
Setup items	Parameters	Description
Scale	25% - <100%> - 400%	Use the following keys to change enlargement and reduction ratios. • [F2] key: Increases the setting value. • [F4] key: Reduces the setting value. • [ENTER] key: Sets the setting value and moves the screen to the menu of the previous hierarchy. • [CANCEL] key: Cancels the setup value, shift to the previous hierarchy menu. Refer to 'Function setup menu'

5.4.52. Mirror menu

To set this to print reversed printing data.

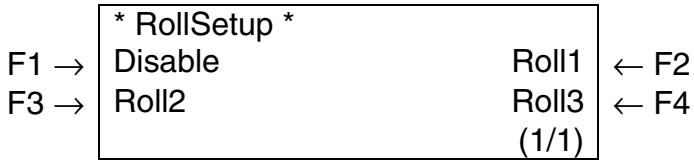
```
                  * Mirror *
F1 →              OFF                 Y ON   ← F2

Current parameter → - OFF -           (1/1)
```

Setup items	Parameters	Description
Mirror	<Off>	No reversal of printing data.
	Y-axis ON	For printing when data is reversed to Y-axis. 
	-	To shift to the previous hierarchy menu. Refer to 'Function setup menu'

5.4.53. Roll Media setup menu

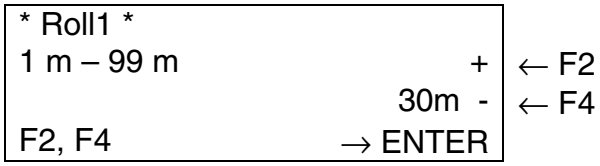
To perform various settings for roll media.



Setup items	Parameters	Description
Roll media setup	Disable	Set this when roll media setup is not used.
	Roll media 1	For each setup value of roll media, 3 settings of "Roll media 1" - "Roll media 3" can be set. Refer to 'Roll media length menu'
	Roll media 2	
	Roll media 3	
	-	• [CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.54. Roll media length menu

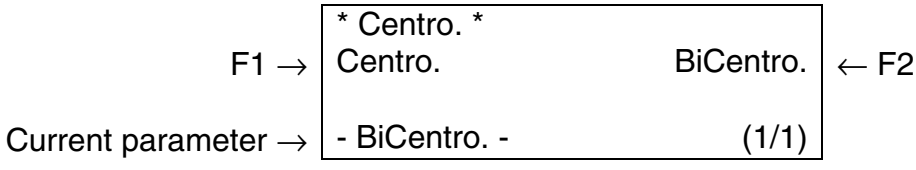
To set roll media length.



Setup items	Parameters	Description
Roll media 1-4	1 m to <30 m>to 99 m	To change roll media length by operating the following keys. • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value. • [ENTER] key: Confirms the setup value, shifts to the previous hierarchy menu. • [CANCEL] key: Cancels the setup value, shifts to the previous hierarchy menu. Refer to 'Roll Media setup menu'

5.4.55. Centronics menu

To set communication mode to Centronics interface.



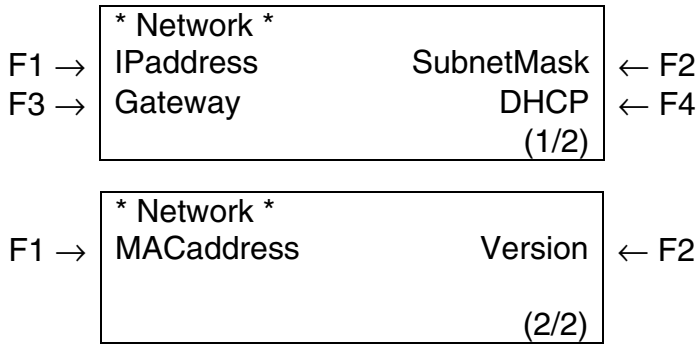
Setup items	Parameters	Description
Centronics	Centronics	To set communication mode to Centronics mode.
	<Bi Centro>	To set communication mode to Bi-Centronics mode.
	-	To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.56. Network setting menu

To make the settings for the network interface.

Notes :

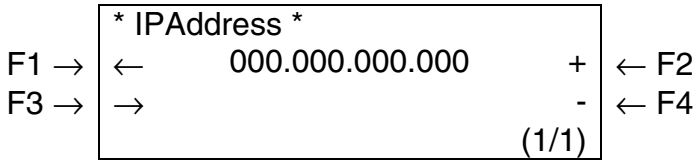
- The Network Settings menu is displayed if the network interface board has been installed.
- Be sure to consult the network administrator before making the settings in the Network Settings menu.



Setup items	Parameters	Description
Network (1/2)	IP address	To set the IP address of the product. Refer to 'IP address menu'
	Subnet mask	To set the subnet mask of the product. Refer to 'Subnet mask menu'
	Gateway	To set the IP address of the connected gateway. Refer to 'Gateway menu'
	DHCP	To make the settings for the DHCP function of the network server. Refer to 'DHCP menu'
Network (2/2)	MAC address	The MAC address of the network interface board can be checked. Refer to 'MAC address menu'
	Version	The following software versions of the network interface board can be checked. Refer to 'Version menu'
Network (1/2 - 2/2)	-	•[CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.57. IP address menu

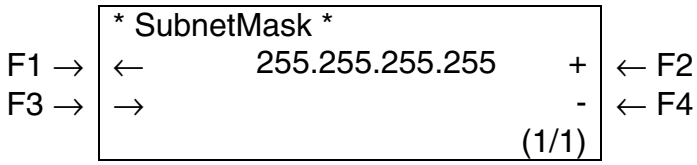
To set the IP address of the product.



Setup items	Parameters	Description
IP address	<000.000.000.000>- 223.255.255.254	Use the following keys to change the IP address. • [F1] key: Moves one digit to the left on the setting value to be changed. • [F2] key: Increases the setting value. • [F3] key: Moves to the right on the setting value. • [F4] key: Reduces the setting value. • [ENTER] key: Sets the setting value, and moves the screen to the menu of the previous hierarchy. • [CANCEL] key: Cancels the setting value, and moves the screen to the menu of the previous hierarchy. Refer to 'Network setting menu'

5.4.58. Subnet mask menu

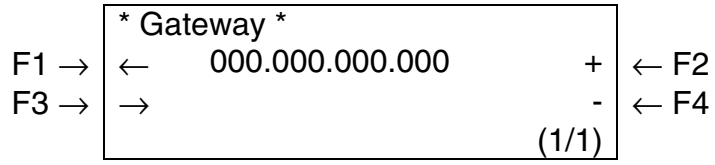
Set the subnet mask of the product.



Setup items	Parameters	Description
Subnet mask	000.000.000.000 - <255.255.255.000> - 255.255.255.255	Use the following keys to change the Subnet Mask. • [F1] key: Moves one digit to the left on the setting value to be changed. • [F2] key: Increases the setting value. • [F3] key: Moves to the right on the setting value. • [F4] key: Reduces the setting value. • [ENTER] key: Sets the setting value, and moves the screen to the menu of the previous hierarchy. • [CANCEL] key: Cancels the setting value, and moves the screen to the menu of the previous hierarchy. Refer to 'Network setting menu'

5.4.59. Gateway menu

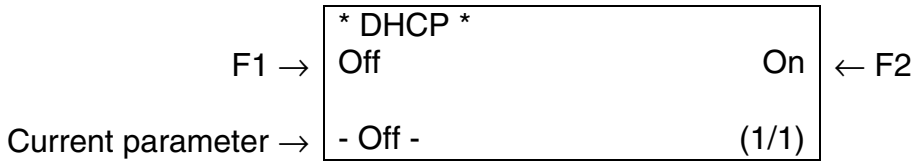
The product sets the IP address of the connected gateway.



Setup items	Parameters	Description
Gateway	<000.000.000.000> - 223.255.255.254	Use the following keys to change the IP address. • [F1] key: Moves one digit to the left on the setting value. • [F2] key: Increases the setting value. • [F3] key: Moves one digit to the right on the setting value. • [F4] key: Reduces the setting value. • [ENTER] key: Sets the setting value, and moves the screen to the menu of the previous hierarchy. • [CANCEL] key: Cancels the setting value, and moves the screen to the menu of the previous hierarchy. Refer to 'Network setting menu'

5.4.60. DHCP menu

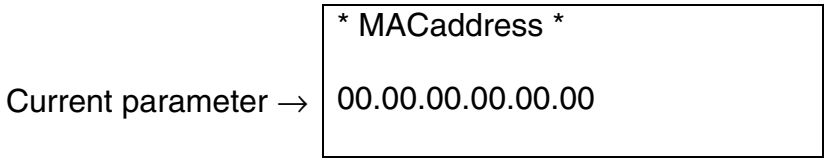
To make the settings for the DHCP function of the network server.



Setup items	Parameters	Description
DHCP	<Off>	Set when DHCP function is unavailable.
	On	Set when DHCP function is available. IP address of the product is automatically allocated by the network server.
	-	To shift to the previous hierarchy menu. Refer to 'Network setting menu'

5.4.61. MAC address menu

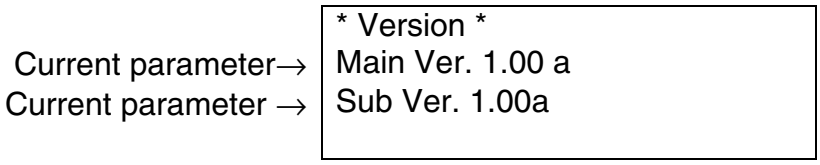
The MAC address of the network interface board can be checked.



Setup items	Parameters	Description
MAC address	• MAC address	Display MAC address of the network interface board.
	-	To shift to the previous hierarchy menu. Refer to 'Network setting menu'

5.4.62. Version menu

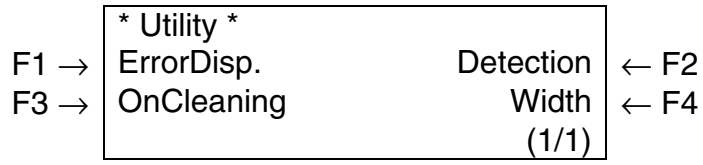
The following software versions of the network interface board can be checked.
• Main version: software version (Main version)
• Sub version: boot version

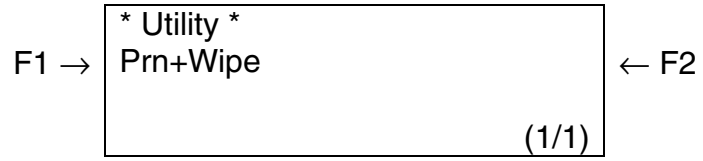


Setup items	Parameters	Description
Version	• Main version • Sub version	The software version of the network interface board is displayed.
	-	- To shift to the previous hierarchy menu. Refer to 'Network setting menu'

5.4.63. Utility menu

To perform various settings for application functions of products.





Setup items	Parameters	Description
Utility (1/2)	ErrorDisplay	To set display method to the operation panel when minor error occurred. Refer to 'ErrorDisplay menu'
	Media detection	When media has been initialized, to perform detection of width and edge of the media. Refer to 'Media detection menu'
	Power on cleaning	When cleaning should be performed automatically with the power is turned on. Refer to 'Power on cleaning menu'
	Media width	If media detection is not performed for initial media, to set the width of the media in the tray. Refer to 'Media width menu'
Utility (2/2)	Print and Wipe	To wipe while printing, to take care of possible condensation on the print head nozzle plate.
Utility (1/2 – 2/2)	-	• [CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.64. ErrorDisplay menu

To set display method to the operation panel when minor error occurred.

	* ErrorDisp. *	
F1 →	OFF ON	← F2
Current parameter →	- OFF - (1/1)	

Setup items	Parameters	Description
ErrorDisplay	<Off>	No ErrorDisplay.
	On	To perform ErrorDisplay.
	-	To shift to the previous hierarchy menu. Refer to 'Utility menu'

5.4.65. Media detection menu

When media has been initialized, to perform detection of width and edge of the media.

	* Detection *	
F1 →	Normal Off	← F2
F3 →	TakeupRoll RollFeed	← F4
Current parameter →	- Normal - (1/1)	

Setup items	Parameters	Description
media detect	<Normal>	To perform media detection automatically.
	OFF	No media detection.
	Take-up mechanism	Make this setting when using the optional take-up system.
	RollFeed	Make this setting when using the optional roll-off/roll-up system.
	-	•[CANCEL] key: to shift to the previous hierarchy menu. Refer to 'Utility menu'

Notes :

- The default setting is 'Rollfeed' as a result of the standard unwinder / winder 100 with your unit.
- When setting "Take-up Mechanism" on the Media Detection menu, the following limits are applied to the operation of the product.
- For initial media, only the media width is detected.
- Under normal conditions, media cannot be sent backward.
- The media cannot be moved forward or backward from the Origin Setting menu.
- The settings in the Media Cut menu are disabled, and the settings are changed to "Off". (Refer to 'Media cut menu')

5.4.66. Power on cleaning menu

When cleaning should be performed automatically with the power is turned on.

F1 → | * OnCleaning * / OFF ON | ← F2

Current parameter → | - OFF - (1/1)

Setup items	Parameters	Description
Power on cleaning	<Off>	Power on cleaning is not performed.
	On	Power on cleaning is performed.
	-	To shift to the previous hierarchy menu. Refer to 'Utility menu'

5.4.67. Media width menu

If media detection has not been performed during initialization, the width of the media is set here.

It can be set in the following ranges:
- 50" model: 210mm-1273mm
- 64" model: 210mm-1651mm
- 87" model: 210mm-2240mm

Notes :

On the media width menu,

- If a value larger than the width of the media has been set, media or the product may be contaminated by the ink during printing.
- If a value smaller than the width of the set media has been set, media may not be cut correctly.

* Width *
210 mm – 1273 mm + ← F2
841 mm - ← F4
F2, F4 → ENTER

Setup items	Parameters	Description
media width	• 50" model: 210mm - <841mm> - 1273mm • 64" model: 210mm - <841mm> - 1651mm • 87" model: 210mm - <841mm> - 2240mm	To change media width by operating the following keys. • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value. • [ENTER] key: Confirms the setup value, shift to the previous hierarchy menu. • [CANCEL] key: Cancels the setup value, shift to the previous hierarchy menu. Refer to 'Utility menu'

5.4.68. Print and wipe menu

To take care of possible condensation on the head nozzle plate, it is possible to wipe while printing.

Prn + Wipe
OFF – Low +
OFF -
F2 , F4 → ENTER

Setup items	Parameters	Description
Print and Wipe	OFF	No wiping during printing
	High	After printing 10 passes, wiping cycle will be performed.
	Middle	After printing 16 passes, wiping cycle will be performed.
	Low	After printing 22 passes, wiping cycle will be performed.
	-	• [CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

Notes :

- Only perform a wipe when there is condensation.
- When there is condensation, and you use the wiping function, please refer to the table mentioned below. → refer to "Technical Information Bulletin TIB073_Rockhopper_II_Solvent_Condensation"
- When installing the new firmware on your Rockhopper II printer, we advise you to install the new wiper. Details will follow in a separate Technical Information Bulletin.
- When you want to do tests with the wiper, start at "Low", otherwise you'll have too many wipes, and it is possible that the 'low' option is sufficient.
- When the fixer (heater B) is not in use and nozzles are miss-firing or not firing, do not use the wiping function to take care of this problem. In this case the miss-firing cannot be caused by condensation. Perform a regular cleaning to solve this problem.

1x6 64" Head height low dpi	dir	pass	advised wipe setting	2x4 64" Head height low dpi	dir	pass	advised wipe setting	1x6 87" Head height low dpi	dir	pass	advised wipe setting
360	bi	1	low	360	bi	1	low	360	bi	1	middle
360	bi	2	low	360	bi	2	low	360	bi	2	middle
360	bi	4	high	360	bi	4	middle	360	bi	4	middle
360	uni	1	high	360	uni	1	low	360	uni	1	middle
360	uni	2	middle	360	uni	2	low	360	uni	2	high
360	uni	4	middle	360	uni	4	low	360	uni	4	high
720	bi	2	high	720	bi	2	low	720	bi	2	high
720	bi	4	low	720	bi	4	low	720	bi	4	low
720	uni	2	high	720	uni	2	middle	720	uni	2	middle
720	uni	4	low	720	uni	4	low	720	uni	4	Low

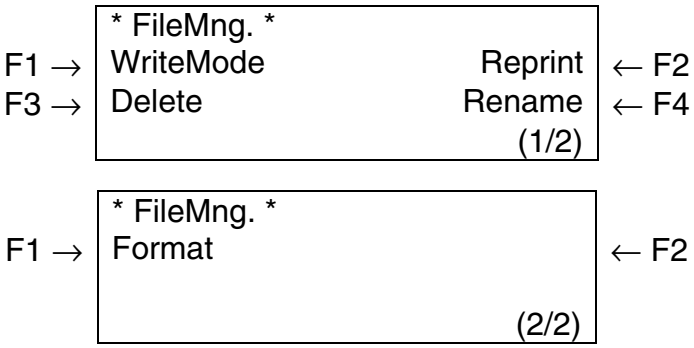
- The expectation is that for 50" units, the advised wiping intensity will be identical or more intense than for a 64" printer.

5.4.69. File management setup menu

Makes various settings for the processing method of the printing data sent from computer to the installed hard disk in the printer.

Notes :

- The items on the File Management menu are displayed if a hard disk has been installed.



Setup items	Parameters	Description
File management (1/2)	Write mode	To set writing method of printing data to the hard disk and printing method. Refer to 'Write mode menu'
	Re-print	Set this when you want to draw the printing data saved on the hard disk. Refer to 'Re-print menu'
	Delete	Set this when deleting the printing data saved on the hard disk. Refer to 'File delete menu'
	Re-name	To change file name of the printing data saved on the hard disk. Refer to 'Re-name menu'
File management (2/2)	Format	To perform formatting of hard disk. Refer to 'Format menu'
File management (1/2-2/2)	-	• [CANCEL] key: To shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.70. Write mode menu

To set writing method of printing data to the hard disk and printing method.

Notes :

- Write mode menu has been displayed if a hard disk has been installed on the product.
- When writing printing data to the hard disk, be sure to set media in the tray. The printing data is sized to fit the media. If there is no media in the tray, the printing data cannot be written.

	* WriteMode *	
F1 →	OFF Write.Prn	← F2
F3 →	Write>Prn WriteOnly	← F4
Current parameter →	- OFF - (1/1)	

Setup items	Parameters	Description
Writing	<Off>	No writing to the hard disk. Performs printing immediately.
	Writing/Printing	Prints while writing the data to the hard disk.
	Printing after writing	Prints after writing the data to the hard disk.
	Writing only	Writes the data to the hard disk without printing. **Note:** Printing method can be set for printing data saved in the hard disk by Re-print menu. Refer to 'Re-print menu'
	-	To shift to the previous hierarchy menu. Refer to 'File management setup menu'

5.4.71. Re-print menu

Set following items when you want to draw printing data saved in the hard disk.
• File name
• Printing media number

Notes :

- Re-print menu is displayed if a hard disk has been installed on the product.
- When Reprintting the printing data,
  - Use media of the same size as the printing data.
    The size of the printing data will be the same as the initial paper size, even if paper of a different size has been set, the printing will start from the same printing start position.
  - Use a cassette with the same colour and type of ink that will be used during the printing data write.
    If an ink cassette with differing colours or type is used, it will not print correctly.

	* Reprint *	
F1 →	← TEMPFILE000 +	← F2
F3 →	→ 0num -	← F4
	Select → ENTER	

Setup items	Parameters	Description
Re-print	File name	To select file name to be printed by operating the following keys. • [F1] key: to select file name with back feed way. • [F3] key: to select file name with forward feed way.
	Number: 0 to 99	To change printing media number by operating the following keys. • [F2] key: Increases the setup value. • [F4] key: Decreases the setup value.
	-	[ENTER] key: • To confirm setup value. • Product starts printing. Ready to Print Heaters Cleaning Cut&Feed LeverUp User1 xxxm • After printing, shift to normal condition. [CANCEL]key: Cancels the setup value, shifts to the previous hierarchy menu. Refer to 'File management setup menu'

5.4.72. File delete menu

Set this when you delete printing data saved on the hard disk.

Notes :

- File delete menu is displayed if a hard disk has been installed.
- If you delete a file by the File delete menu, you cannot retrieve that file again. If you want to use the deleted file again, send the printing data to the hard disk again. Re-print menu is displayed if a hard disk has been installed.

	* Delete *
F1 →	← TEMPFILE00
F3 →	→
	SELECT → ENTER

Setup items	Parameters	Description
Delete	File name	To select to-be-deleted file name by operating the following keys. • [F1] key: To select file name with back feed way. • [F3] key: To select file name with forward feed way. • [ENTER] key: Deletes selected file, shifts to the previous hierarchy menu. • [CANCEL] key: Cancels setup value, shifts to the previous hierarchy menu. Refer to 'File management setup menu'

5.4.73. Re-name menu

To change file name of printing data saved in the hard disk.

Notes :

- Re-name menu is displayed if a hard disk has been installed.
- The file name of printing data sent from the computer is always set to "TEMPFILE000". To save transmitted image data, change the file name to a name of your choice in the Rename folder before transmitting the next printing data.

	* Rename *
F1 →	← TEMPFILE000
F3 →	→
	SELECT → ENTER

Setup items	Parameters	Description
Rename	File name	To select to-be-changed file name by operating the following keys. • [F1] key: Selects file name with back feed way. • [F3] key: Selects file name with forward feed way. • [ENTER] key: Confirms setup value. The following messages are displayed on the operation panel. • [CANCEL] key: Cancels setup value, shifts to the previous hierarchy menu. Refer to 'File management setup menu'

F1 → ← F2
F3 → → ← F4

```
* TEMPFILE000 *
← TEMPFILE000 →
→ [T] →
JKLMNOPQRS+UVWXYZ01234
```

Setup items	Parameters	Description
To-be-changed file name	Characters you want to change	To select characters you want to change by operating the following keys. • [F1] key: To select characters you want to change with back feed way. • [F3] key: To select characters you want to change with forward feed way.
	Characters you can use are : A-Z or 0-9	To select to-be-changed characters by operating following keys. • [F2] key: Selects to-be-changed characters with back feed way. • [F4] key: Selects to-be-changed characters with forward feed way.
	-	• [ENTER] key: Confirms setup value, shifts to the previous hierarchy menu. • [CANCEL] key: Cancels setup value, shifts to the previous hierarchy menu. Refer to 'File management setup menu'

5.4.74. Format menu

To perform formatting of the hard disk.

Notes :

- Format menu is displayed if a hard disk has been installed.
- If formatting of the hard disk is performed, all data saved on the hard disk will be deleted.

F1 →
Current parameter →

```
* Format *
No Yes
- No - (1/1)
```

← F2

Setup items	Parameters	Description
Format	No	Format is not performed.
	-	• [CANCEL] key: Cancels setup value, shifts to the previous hierarchy menu. Refer to 'File management setup menu'
	Yes	To perform formatting.

```
* Format *
Format Harddisk

      ENTER or   CANCEL
```

Setup items	Parameters	Description

Format	Format will be performed.
	OK?
		•[ENTER] key:
		• Product starts formatting.
		•The following messages are displayed on the operation panel.
		`* Format *`
		`Format HardDisk ….`
		• After formatting, to shift to the previous hierarchy menu.
		Refer to 'File management setup menu'

		• [CANCEL] key • Formatting will not be performed. • To shift to the previous hierarchy menu. Refer to 'File management setup menu'

5.4.75. Initialize setup menu

Returns parameters to the factory settings.

```
                * Initial. *
F1 →  ALL                    MediaSet  ← F2
F3 →  PrintMode              Command   ← F4
                             (1/3)
```

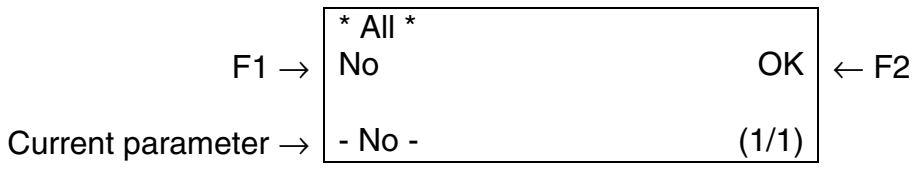
```
                * Initial. *
F1 →  Layout                 Function  ← F2
F3 →  RollSetup              Centro.   ← F4
                             (2/3)
```

```
                * Initial. *
F1 →  Network                Utility   ← F2
F3 →  FileMng.               WEB password ← F4
                             (3/3)
```

Setup items	Parameters	Description
Initialize (1/3)	All	Returns all parameters to the factory setting. Refer to 'All Initialize menu'
	MediaSet	Returns parameters in the media setup menu to the factory setting. Refer to 'Media setup Initialize menu'
	PrintMode	Returns parameters in the print mode menu to the factory setting. Refer to 'Printing mode initialize menu'
	Command	Returns parameters in the command setup menu to the factory setting. Refer to 'Command setup Initialize menu'
Initialize (2/3)	Layout	Returns parameters in the layout setup menu to the factory setting. Refer to 'Layout Setup Initialize menu'
	Func.	Returns parameters in the function setup menu to the factory setting. Refer to 'Function setup Initialize menu'
	Roll media	Returns parameters in the roll media setup menu to the factory setting. Refer to 'Roll media setup Initialize menu'
	Interface	Returns parameters in the Centronics setup menu to the factory setting. Refer to 'Centronics Initialize menu'
Initialize (3/3)	Network	Returns parameters in the network setup menu to the factory setting. Refer to 'Network Initialize menu'
	Utility	Returns parameters in the utility setup menu to the factory setting. Refer to 'Utility Initialize menu'
	File management	The file management setup menu values are reset to factory default settings. Refer to 'File management Initialize menu'
	WEB password	To return the WEB password setting value to the initial value at the time of shipment from the factory. Refer to 'WEB password initialize menu'
Initialize (1/3-3/3)	-	• [CANCEL] key: Shifts to the previous hierarchy menu. Refer to 'Setup menu'

5.4.76. All Initialize menu

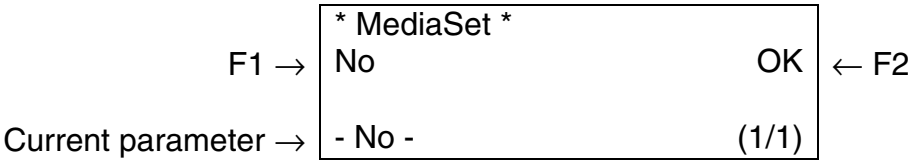
All setup values are set to the factory default settings.



Setup items	Parameters	Description
All Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.77. Media setup Initialize menu

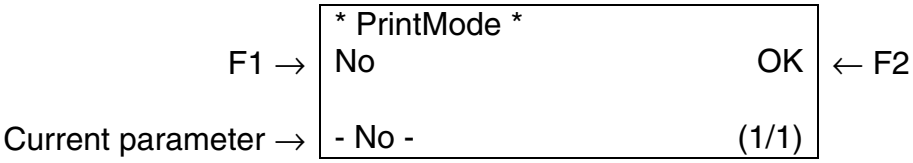
Setup values of Media setup menu are set to the factory default settings.



Setup items	Parameters	Description
Media setup Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.78. Printing mode initialize menu

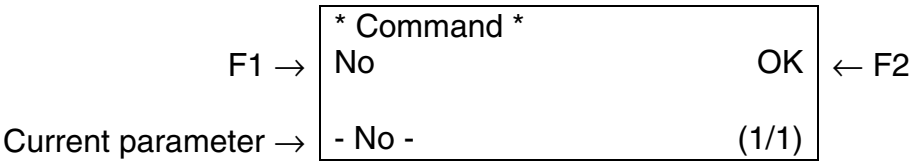
Setup values of Printing mode menu are set to the factory default settings.



Setup items	Parameters	Description
Printing mode initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.79. Command setup Initialize menu

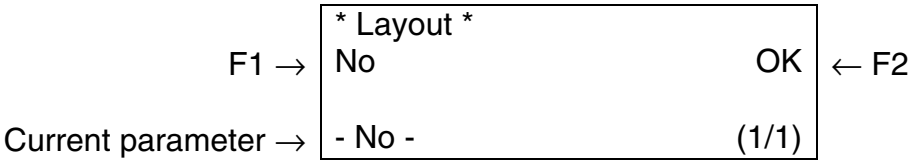
Setup values of CommandSetup menu are set to the factory default settings.



Setup items	Parameters	Description
Command setup Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.80. Layout Setup Initialize menu

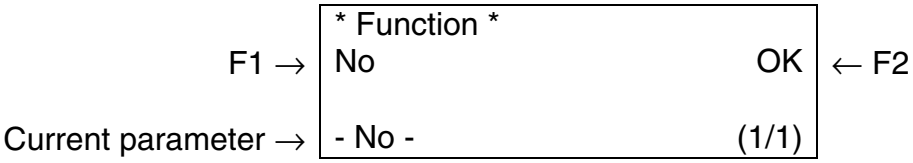
Setup values of Layout Setup menu are set to the factory default settings.



Setup items	Parameters	Description
Layout Setup Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.81. Function setup Initialize menu

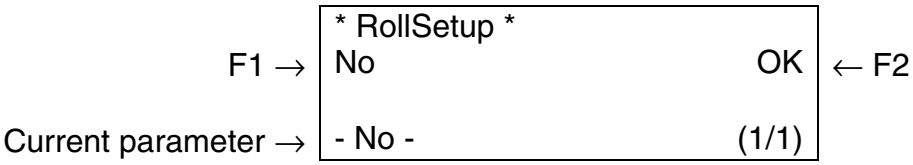
Setup values of Function setup menu are set to the factory default settings.



Setup items	Parameters	Description
Function setup Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.82. Roll media setup Initialize menu

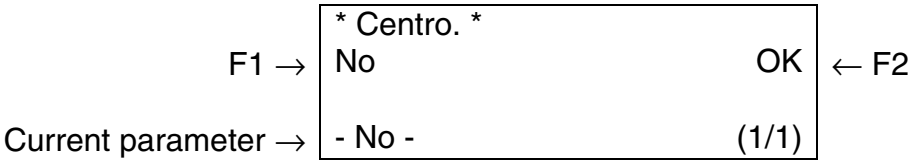
Setup values of Roll Media setup menu are set to the factory default settings.



Setup items	Parameters	Description
Roll media setup Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.83. Centronics Initialize menu

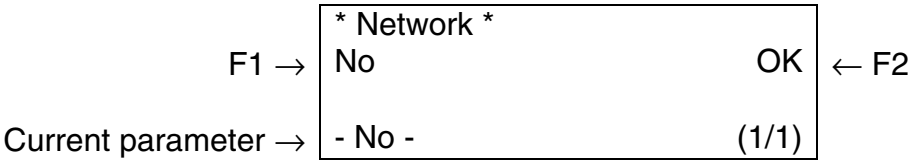
Setup values of Centronics menu are set to the factory default settings.



Setup items	Parameters	Description
Centronics Initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.84. Network Initialize menu

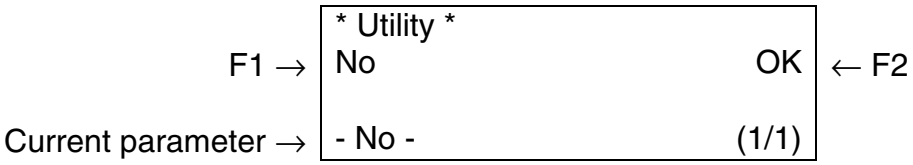
Setup values of Network menu are set to the factory default settings.



Setup items	Parameters	Description
Network initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.85. Utility Initialize menu

Setup values of Utility menu are set to the factory default settings.



Setup items	Parameters	Description
Utility initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.86. File management Initialize menu

Setup values of File management menu are set to the factory default settings.

F1 → | * FileMng. * / No OK | ← F2

Current parameter → | - No - (1/1)

Setup items	Parameters	Description
File management initialize	<NO>	No initialization.
	OK	To perform initialization.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.87. WEB password initialize menu

Return the WEB password setting value to the factory default settings.

F1 → | * WEBpassword * / No Yes | ← F2

Current parameter → | - No - (1/1)

Setup items	Parameters	Description
WEB password initialize	<NO>	Initializing is not performed.
	OK	Initializing is performed.
	-	After setting, to shift to the previous hierarchy menu. Refer to 'Initialize setup menu'

5.4.88. Data dump menu

To perform dump printing for online function check.

F1 → | * DataDump * / Start/End All | ← F2

(1/1)

Setup items	Parameters	Description
Data Dump	Start/End	Notes : • Dump printing is used by service persons to check the functions of the printer. Do not use this function for normal printing.
	All	
	-	•[CANCEL] key: • to exit Dump Mode. • to shift to the previous hierarchy menu. Refer to 'Setup menu'

5.4.89. Ink Manager menu

To perform a 'Head Wash', "Ink load' or 'Ink Change'.

F1 → | * Ink Manager *
HeadWash
F3 → | InkLoad InkChange ← F4
(1/1)

Setup items	Parameters	Description
Ink Manager	Head Wash	To perform a head cleaning.
	Ink Load	To load ink.
	Ink Change	To change ink type.
	-	• [CANCEL] key: shift to the previous hierarchy menu. Refer to 'Setup menus'

5.4.90. Head Wash menu

To perform a head wash to remove all ink of the ink supplying system.

F1 → | * HeadWash *
No Yes ← F2
(1/1)

Setup items	Parameters	Description
Head clean	No	Do not wash the ink supplying system.
	Yes	To wash the ink supplying system.
	-	• [CANCEL] key: shift to the previous hierarchy menu. Refer to 'Setup menus'

Notes :

- Only after two head wash cycles it is possible to change ink types. Use the 'Ink Load'to load ink.

The process consists of several cleaning loadings, several air loadings and one ink loading. On the display of the operation panel a time indication is mentioned on the fourth line.

Message	Time 50"	Time 64"	Time 87"
Please remove cart.			
Ink Discharge	6	6	7
Please insert Cleaning cart			
During washing wait for a while	20	22	29
Remove cassettes			
During washing wait for a while	6	6	7
The end			

5.4.91. Ink Load menu

To load ink.

F1 → | * InkLoad * | Start Stop | (1/1) | ← F2

Setup items	Parameters	Description
Ink Load	Start	Starts the ink load process of 8 minutes.
	Stop	Stops the ink load process.
	-	• [CANCEL] key: shift to the previous hierarchy menu. Refer to 'Setup menus'

5.4.92. Ink Change menu

To perform an ink change.

F1 → | * InkChange * | No Yes | (1/1) | ← F2

Setup items	Parameters	Description
Ink Change	No	Do not perform an ink change.
	Yes	To start the ink change cycle.
	-	• [CANCEL] key: shift to the previous hierarchy menu. Refer to 'Setup menus'

Notes :

- To reduce the consumption of ink and cleaning liquid it is recommended to change ink types by using the 'Ink Change' cycle.

The process consists of several cleaning loadings, several air loadings and one ink loading. On the display of the operation panel a time indication is mentioned on the fourth line.

Message	Time 50"	Time 64"	Time 87"
Please remove cart. (*)			
Ink Discharge (*)	1	1	1
Please insert Cleaning cart (*)			
During washing wait for a while (*)	5	5	10
Remove cassettes			
During washing wait for a while	6	6	7
Please insert ink cart.			
Ink refill	8	8	8
The end			

(*) = This will be asked 7 times.

5.4.93. Cutter change menu

Makes the setting to replace the cutting blade.

Notes:

- Refer to "Replacing the cutting blade" for details regarding the procedure for manually changing the cutting blade

F1 → | * CutterChg. * / No Yes | ← F2

Current parameter → | - No - (1/1)

Setup items	Parameters	Description
Cutter change	No	Do not change the cutting blade. To shift to the previous hierarchy menu. Refer to 'Setup menu'
	Yes	To change the cutting blade.
	-	• [CANCEL] key: shifts to the previous hierarchy menu. Refer to 'Setup menu'

5.4.94. Wiper clean menu

To clean the cleaning wiper.
Make the setting for cleaning the cleaning wiper.

Notes :

- Refer to "Cleaning the cleaning wiper" for details regarding the procedure for cleaning the cleaning wiper.

F1 → | * WiperClean * / No Yes | ← F2

Current parameter → | - No - (1/1)

Setup items	Parameters	Description
Wiper clean	No	Do not clean the cleaning wiper. To shift to the previous hierarchy menu. Refer to 'Setup menu'
	Yes	To clean the cleaning wiper.
	-	• [CANCEL] key: shifts to the previous hierarchy menu. Refer to 'Setup menu'

5.4.95. Tank change menu

To change the waste fluid tank.
Set when changing the waste fluid tank.

Notes :

- Refer to "Replacing the waste liquid tank" for details regarding the procedure for changing the waste fluid tank.

Changed wasted ink tank? ENTER or CANCEL

Setup items	Parameters	Description
Tank change	Cancel	Do not change the tank. To shift to the previous hierarchy menu. Refer to 'Setup menu'
	Enter	When tank has been changed.
	-	•[CANCEL] key: shifts to the previous hierarchy menu. Refer to 'Setup menu'

5.4.96. Tubing Flush menu

To remove rest fluids out of the capping station and waste tubes, a new menu option was added.

Important :

- **The tubing flush sequence will not remove fluids out of the head nor out of the ink supply tubes.**

The tubing flush feature includes following sequence:

1) The head is moved away from the capping position.
2) Pump sequence is started.
3) Pumps are stopped and head is re-capped.

The tubing flush can be started via the "TubingFlush" menu.

SetupMenu	
CutterChg.	WiperClean
TankChg.	TubingFlush
	(6/7)

- **Tubing flush for 4 head printer.**

TubingFlush Head 1 – 2

Notes :

- The number of the heads refer to the numbers above a nozzle check.

If you select Head 1-2, the head moves away from the capping station and the pump motors start turning counter clockwise. On the display following text appears:

TubingFlush
Tubing flushed?
→ ENTER

The pumps turn for a certain time. Press ENTER as they stop. To stop the pump motors earlier, press ENTER during the pump cycle. The following display will appear.

TubingFlush
Head 1 – 2

➔ To start the pumps again, select Head 1-2.

➔ To stop the tubing flush, press CANCEL. The head carriage moves back to the capping station.

- **Tubing flush for 8 head printer**

TubingFlush	
Head 1 – 2	Head 3 -4

If you select Head 1-2, pump 1 of pump motor 1 and pump 1 of pump motor 2 starts pumping. The pump motors turn clock wisely. If you select Head 3-4, pump 2 of pump motor 1 and pump 2 of pump motor 2 starts pumping. The pumps turn counterclockwisely

5.4.97. Version Check menu

To check the installed firmware version.

* VersionCheck *
RJ : rh x.xx
Heat Sys : y.yy

Setup items	Parameters	Description
Version Check	-	• [CANCEL] key: shift to the previous hierarchy menu. Refer to 'Setup menus'

x.xx = firmware version of the RJ main board.
y.yy = firmware version of the heating board.

5.5. OPERATING FROM THE OPERATION PANEL

This section describes functions operated on the operational panel when the printer is in the normal status.

Notes :

- For information of the name and function of each key, refer to "Operation panel".

5.5.1. Controlling the heater elements on the Rockhopper II printer

If you want to change or check the heater elements, follow the steps below.

Step 1 : Press the [F1] key on the operation panel.

- The printer works as follows.

	Ready to print	
F1 →	Heaters Cleaning	← F2
F3 →	Cut&Feed LeverUp	← F4
	User1 xxxm	

By pressing the [F1] key, you will have direct access to control or change the heaters temperatures.

After pressing the [F1] key in the normal status, the operation panel will mention the following:

	* Heaters *	
F1 →	A : S 50 – R 50	
F3 →	D : S 50 – R 50 SET ON	← F4
	heater message	

The 'heater message' can be one of the following:
Heater standby
Heater warming up
Heater ready

Notes :

- Previous firmware mention: 'Heater standby', 'Heater ON', 'Heater OFF', 'Heater ON (A)' and 'Heater ON (D)'.

'A' stands for the rear heaters.
'D' stands for the dryers.
'S' stands for the Set-temperature (requested temperature).
'R' stands for the Real-temperature (actual temperature).

5.5.1.1. Change the rear heater temperature

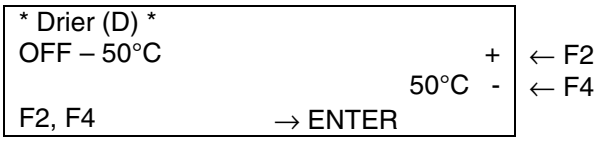
To change the temperature of the rear heaters, press the [F1] key on the operation panel. The display will mention the following:

Press the [F2] key to decrease the temperature.
Press the [F4] key to increase the temperature.

Press the [ENTER] key to confirm the requested temperature change.
Press the [CANCEL] key to leave the menu without changing the rear heater settings.

5.5.1.2. Change the dryer temperature

To change the temperature of the dryers, press the [F3] key on the operation panel. The display will mention the following:



Press the [F2] key to decrease the temperature.
Press the [F4] key to increase the temperature.

Press the [ENTER] key to confirm the requested temperature change.
Press the [CANCEL] key to leave the menu without changing the rear heater settings.

5.5.1.3. Activate/ deactivate heaters.

By pressing the [F4] key you can activate or deactivate all heating elements.

In case the heating elements are activated, the display will mention "SET OFF". By pressing the [F4] key you can deactivate the heating elements. The display will mention "SET ON".

In case the heating elements are deactivated, the display will mention "SET ON". By pressing the [F4] key you can activate the heating elements. The display will mention "SET OFF".

Please note that after finishing a printing job (and no other print job is sent to the printer the heating elements will keep their temperature for approximately 6 minutes. After 6 minutes the heating elements are powered OFF.

5.5.2. Controlling the heater elements on the Rockhopper II 4H printer

If you want to change or check the heater elements, follow the steps below.

Step 1 : Press the [F1] key on the operation panel.

- The printer works as follows.

	Ready to Print	
F1 →	Heaters Cleaning	← F2
F3 →	Cut&Feed LeverUp	← F4
	User1 xxxm	

By pressing the [F1] key, you will have direct access to control or change the heaters temperatures.

After pressing the [F1] key in the normal status, the operation panel will mention the following :

	* Heaters * (1/2)	
F1 →	A : S 50 – R 50 B : S 50 – R 50	← F2
F3 →	C : S 50 – R 50 D : S 50 – R 50	← F4
	heater message	

	* Heaters * (2/2)
F1 →	SET ON
	heater message

The 'heater message' can be one of the following:
Heater standby
Heater warming up
Heater ready

Notes :

Previous firmware mention : 'Heater standby', 'Heater ON', 'Heater OFF', 'Heater ON (A)', 'Heater ON (D)', 'Heater ON (B)', 'Heater ON (C)', 'Heater ON (A, B)', 'Heater ON (A, C)', 'Heater ON (A, D)', 'Heater ON (A, B, C)', 'Heater ON (A, B, D)', 'Heater ON (A, C, D)', 'Heater ON (B, C)', 'Heater ON (B, D)' and 'Heater ON (C, D)'

'A' stands for the heater.
'B' stands for the fixer.
'C' stands for the post fixer.
'D' stands for the dryer.
'S' stands for the Set-temperature (requested temperature).
'R' stands for the Real-temperature (actual temperature).

5.5.2.1. Change the heater temperature

To change the temperature of the heater, press the [F1] key on the operation panel. The display will mention the following:

Press the [F2] key to decrease the temperature.
Press the [F4] key to increase the temperature.

Press the [ENTER] key to confirm the requested temperature change.
Press the [CANCEL] key to leave the menu without changing the heater settings.

5.5.2.2. Change the fixer temperature

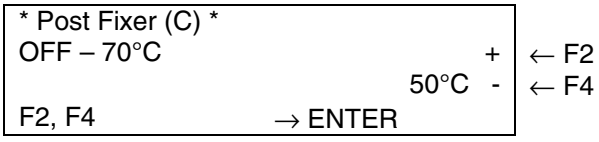
To change the temperature of the fixer, press the [F2] key on the operation panel. The display will mention the following:

Press the [F2] key to decrease the temperature.
Press the [F4] key to increase the temperature.

Press the [ENTER] key to confirm the requested temperature change.
Press the [CANCEL] key to leave the menu without changing the heater settings.

5.5.2.3. Change the post fixer temperature

To change the temperature of the post fixer, press the [F3] key on the operation panel. The display will mention the following:



Press the [F2] key to decrease the temperature.
Press the [F4] key to increase the temperature.

Press the [ENTER] key to confirm the requested temperature change.
Press the [CANCEL] key to leave the menu without changing the heater settings.

5.5.2.4. Change the dryer temperature

To change the temperature of the dryers, press the [F4] key on the operation panel. The display will mention the following:

Press the [F2] key to decrease the temperature.
Press the [F4] key to increase the temperature.

Press the [ENTER] key to confirm the requested temperature change.
Press the [CANCEL] key to leave the menu without changing the rear heater settings.

5.5.2.5. Activate/ deactivate heaters.

In the second menu, press the [F1] key to activate or deactivate all heating elements.

In case the heating elements are activated, the display will mention "SET OFF". By pressing the [F4] key you can deactivate the heating elements. The display will mention "SET ON".

In case the heating elements are deactivated, the display will mention "SET ON". By pressing the [F4] key you can activate the heating elements. The display will mention "SET OFF".

Please note that after finishing a printing job (and no other print job is sent to the printer the heating elements will keep their temperature for approximately 6 minutes. After 6 minutes the heating elements are powered OFF.

5.5.3. Feeding media

When you want to feed media forward or backward, follow the steps below:

Step 1 : Verify the following regarding the condition of the printer.
- ➢ It is not currently printing

F3 →

Ready to print	
Heaters	Cleaning
Cut&Feed	LeverUp
User1	xxxm

Step 2 : Press the [F3] key of the operation panel.
- ➢ To shift to the feed & reel menu.

F3 →

* Cut&Feed *		
Cut		
Forward	Backward	← F4

Step 3 : Press the [F3] key or the [F4] key on the operation panel.
- ➢ The product will perform following operations:

Setup items	Key name	Parameters	Description
Cut & Feed	F3	Forward	Feeds media forward.
	F4	Backward	Feeds media backward.

Notes :

- If "Take-Up Roll" is set in the media detection setup menu, the product will not operate even if the [F4] key has been pressed.
  Refer to 'Media detection menu'

5.5.4. Operating the pressure rollers

When you want to switch the up and down movement of the pressure rollers follow the steps below.

Step 1 : Press the [F4] key on the operation panel.

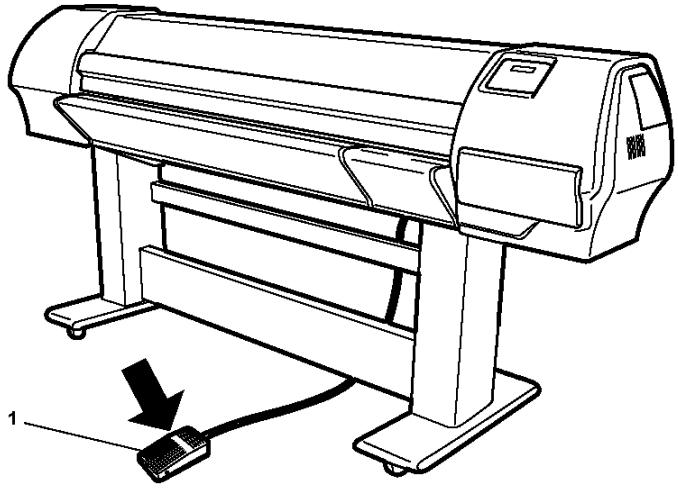
- ➢ The printer works as follows.

Ready to print	
Heaters	Cleaning
Cut&Feed	LeverUp ← F4
User1	xxxm

Status of the printer	Operation after the [F4] key has been pressed
• The pressure rollers have been lowered • The MEDIA SET lamp turns off.	• The pressure rollers are lifted • The MEDIA SET lamp will turn on (orange).
• The pressure rollers have been raised. • The MEDIA SET lamp turns on (orange).	• The pressure rollers are lowered. • The MEDIA SET lamp will turn off.

Notes :

- You can also switch the up and down movement of the pressure rollers using the foot switch instead of the operation panel.



1. Foot switch

5.5.5. Print mode check

Use the following procedure to check the print mode currently set.

Step 1 : Press the [ENTER] key on the operation panel.
- ➢ The following information is displayed on the operation panel for three seconds.

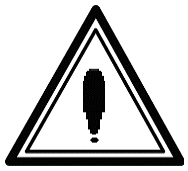
	* Printmode *
1 →	Condition 360x360
2 →	Interlace 1pass
3 →	Direction UniDir

No.	Position	Description	Reference
1	Line 2	The printing quality is displayed.	Refer to 'Printing quality menu'
2	Line 3	The interlace method is displayed.	Refer to 'InterLace Setup menu'
3	Line 4	The printing direction is displayed.	Refer to 'Printing direction menu'

Step 2 : When the printing mode display closes, the product changes to its normal status.

5.6. OPERATIONS AFTER PRINTING

The operations performed after printing, are described here.



Caution :

- When using the media retainers, do not use the cut function.

5.6.1. Cutting media

The media cutting procedure is described below.
Roll media is automatically cut after printing when "Auto" is set on the cut media menu and roll media has been set.
When the operation panel is in the normal status, and the product is in the following conditions, the media can be cut on the desired position:

- When roll media has been set:
- If "OFF" is set on the cut media menu
- If "Take Up Roll" has been set in the media detection setup menu
- When sheet media has been set

Follow the steps below to cut the media.

Step 1 : Make sure that the MEDIA SET lamp on the operation panel is off.

	Ready to print	
	Heaters	Cleaning
F3 →	Cut&Feed	LeverUp
	User1	xxxm

Step 2 : Press the [F3] key on the operation panel.

➢ Shift to the cut and feed menu.

	* Cut&Feed *		
	Cut		
F3 →	Forward	Backward	← F4

Step 3 : Feed media to the desired position according to the procedure in "Feeding media".

	* Cut&Feed *		
	Cut		
F1 →	Forward	Backward	← F4

Step 4 : Press the [F1] key on the operation panel.

Media Cut?
ENTER or CANCEL

- The media is cut at its position when the [ENTER] key has been pressed.

Notes :

- If the front edge of the roll media is not straight when you load new roll media, you should cut its edge.
- Cutting blades are consumable. Replace them at regular intervals following "Replacing the cutting blade".

5.6.2. Media cutting procedure

This section explains how to cut the media manually.
When "Manual" is set in the media cut menu, the media can be cut manually.
Cut the media according to the following procedure.

Step 1 : Make sure that the MEDIA SET lamp on the operation panel is off.

Notes :

- After printing, the media is automatically transferred to the media cutting position.

	Ready to print	
	Heaters	Cleaning
F3 →	Cut&Feed	LeverUp
	User1	xxxm

Step 2 : Press the [F3] key on the operation panel.

- Shift to the cut and feed menu.

	* Cut&Feed *		
	Cut		
F3 →	Forward	Backward	← F4

Step 3 : Feed media to the desired position according to the procedure in "Feeding media".

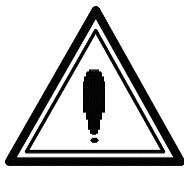
	* Cut&Feed *		
	Cut		
F1 →	Forward	Backward	← F4

Step 4 : Press the [F1] key on the operation panel.

- The following messages are displayed on the operation panel.

```
*Cut & Feed*
                    Media Cut?
        ENTER or CANCEL
```

Step 5 : Cut the roll media.



Caution :

- When cutting roll media, be careful of the following. Incorrect handling can result in injury to the hands and fingers from the razor blade.

Step 6 : Press the [ENTER] key of the operation panel.

- The unit enters the normal status.

```
Print OK
Heaters                 Cleaning
Cut&Feed                LeverUp
User1                      xxxm
```

6. TROUBLESHOOTING

6.1. INTRODUCTION

This chapter explains troubles that may occur when using the printer and how to solve them.
If you encounter an error not described in this chapter, refer to "Error messages" and contact your local MUTOH dealer.

Notes :

To receive our customer support service, please present your warranty. If you do not present it, you may be changed for the service even if it is within the term of warranty. If you have a maintenance service contract, please show the agreement or other documents.

6.2. FAILURES AND MALFUNCTIONS OF THE PRINTER

This section describes the failures and malfunctions of the printer not displayed as errors, causes and solutions.

(1) The printer does not work after the power has been turned on.

No.	Possible cause	Solutions	Reference
1	You did not plug the power cable in.	Plug in the power cable.	Refer to 'Connecting the power cable'
2	The AC power does not match the specified voltage.	Use the printer at the specified voltage	Refer to 'Connecting the power cable'
3	The front cover is open.	Close the front cover.	Refer to 'Media handling'

(2) The printer does not work after media has been loaded.

No.	Possible cause	Solutions	References
1	The front cover is open.	Close the front cover	Refer to 'Media handling'
2	The pressure rollers have been raised.	Lower the pressure rollers lever.	Refer to 'Media handling'
3	You did not load the media straight into the printer.	Load the media straight into the printer.	Refer to 'Media handling'
4	One or more ink cassettes are not installed.	Install (an) ink cassette(s).	Refer to 'Installing ink cassettes'
5	You did not use recommended media.	Use recommended media.	Refer to 'Media type'
6	You used the printer in direct sunlight or other locations not appropriate for the specified environment.	Use the printer in the specified environment.	Refer to 'Product Specifications'

(3) The printer does not work after data has been sent from a computer.

No.	Possible cause	Solutions	Reference
1	You did not connect the interface cable.	Connect the interface cables.	Refer to 'Connecting the Centronics interface' Refer to 'Connecting the network interface'
2	One or more ink cassettes have not been installed.	Install (an) ink cassette(s).	Refer to 'Installing ink cassettes'
3	Ink cassette is empty.	Replace the ink cassette.	Refer to 'Replacing ink cassettes'

(4) The printer does not print and an error is generated after data has been sent from a computer.

No.	Possible cause	Solutions	References
1	The model setting of the computer is not correct.	Make sure that the model settings on computer and printer are the same.	Refer to 'Connecting the printer to your PC'
2	The interface setting or command mode on computer and printer do not match.		

(5) Printouts are partially blurred or missing.

Notes :

You may not obtain reasonable quality with media other than recommended media.

No.	Possible cause	Solutions	References
1	The media is damped.	Replace with new media.	Refer to 'Replacing media'
2	You used folded, creased or curled media.		
3	Check the media for curling or lift off.	Use the recommended media. When using media other than recommended media, set the following items in the media setting menu. • Media • HeadHeight • Stiff	Refer to 'Media type' Refer to 'Menu setup on the operation panel'

(6) Printing position is not correct (some positions are not printed.)

No.	Possible cause	Solutions	References
1	The loading position of the media is not correct.	Load the media correctly.	Refer to 'Loading media'
2	You used the scale or mirror setting.	Turn off the scale or mirror setting, or make the setting again.	Refer to 'Menu setup on the operation panel'
3	You set the origin or starting position.	Turn off the origin or starting position setting, or make the setting again.	Refer to 'Menu setup on the operation panel'

(7) Media jams occur frequently.

Notes :

We cannot ensure correct media feeding with media other than recommended media.

No.	Possible cause	Solutions	References
1	You did not use recommended media.	Use recommended media.	Refer to 'Media type'
2	You used the printer in an environment other than the specified environment.	Use the printer in the specified environment.	Refer to 'Cautions on handling media'
3	You used old media.	Replace with new media.	Refer to 'Replacing media'
4	You used folded, creased, or curled media.		
5	Check the media for curling or liftoff.	Use the recommended media. When using media other than recommended media, set the following items in the media setting menu. • Media • HeadHeight • Stiff	Refer to 'Media type' Refer to 'Menu setup on the operation panel'

(8) Roll media cannot be cut correctly.

No.	Possible cause	Solutions	References
1	The edge of the cutting blade is not sharp.	Replace the cutting blade.	Refer to 'Replacing the cutting blade'
2	The roll media has static electricity.	Remove the static electricity on the roll media.	-
3	Media is too heavy to cut automatically.	Cut the media manually.	

(9) You cannot perform initial ink charging.

No.	Possible cause	Solutions	References
1	The front cover is open or the hold lever is up.	Close the front cover and lower the hold lever.	Refer to 'Media handling'
2	Some of the 8 ink cassettes are not loaded properly.	Load all of the 8 cassettes properly.	Refer to 'Installing ink cassettes'

(10) Ink is not used though you performed initial ink charge.

No.	Possible cause	Solutions	References
1	The ink cassette is cold or frozen.	Leave the ink cassette in normal temperature for three hours at least, and perform cleaning a few times.	Refer to 'Head cleaning'
2	You turned off the printer during the initial ink charging.	Turn on the printer to continue the initial ink charging.	Refer to 'Installing ink cassettes'
3	The printer rarely prints correctly only after initial ink charging.	Perform cleaning a few times and check again.	Refer to 'Head cleaning'

(11) The media is off or damaged when loading it.

Notes :

Remove the jammed or damaged media, referring to "When media jams occur".

No.	Possible cause	Solutions	References
1	You did not use recommended media.	Use recommended media.	Refer to 'Media type'
2	The loading position of the media is not correct.	Load the media correctly.	Refer to 'Loading media'
3	Foreign material, such a piece of media, is attached to the pressure rollers.	Clean the pressure rollers.	Refer to 'Cleaning the inside of the printer'
4	You used the printer in direct sunlight or other locations not appropriate for the specified environment.	Use the printer in the specified environment.	Refer to 'Product Specifications'
5	You loaded sheet media into the printer.	Set the CutSize setting to Length or Width.	Refer to 'Menu setup on the operation panel'
6	You used folded, creased, or curled media.	Replace with new media.	Refer to 'Cautions on handling media'
7	Check the media for curling or liftoff.	Use the recommended media. When using media other than recommended media, set the following items in the media setting menu. • Media • HeadHeight • Stiff	Refer to 'Media type' Refer to 'Menu setup on the operation panel'

(12) Media is damaged during media Initial.

Notes :

Remove the jammed or damaged media.

No.	Possible cause	Solutions	References
1	You did not use recommended media.	Use recommended media.	Refer to 'Media type'
2	The loading position of the media is not correct.	Load the media correctly.	Refer to 'Loading media'
3	You did not load the media straight into the printer.	Load the media straight into the printer.	Refer to 'Loading media'
4	Foreign material, such a piece of media, is attached to the pressure rollers.	Clean the pressure rollers.	Refer to 'Cleaning inside the printer'
5	You used the printer in a location with air conditioner or other location not appropriate for the specified environment.	Use the printer in the specified environment.	Refer to 'Product Specifications'
6	You loaded sheet media into the printer.	Set the CutSize setting to Length or Width.	Refer to 'Menu setup on the operation panel'
7	You used media folded, creased, damaged, tore, curled.	Replace the media.	Refer to 'Cautions on handling media'

(13) Tracing media or other thin media cannot be detected.

No.	Possible cause	Solutions	References
1	You did not use recommended media.	Use recommended media.	Refer to 'Media type'
2	You used the printer in direct sunlight or other locations not appropriate for the specified environment.	Use the printer in the specified environment.	Refer to 'Product Specifications'

(14) Media size is wrong during media Initial.

No.	Possible cause	Solutions	References
1	You did not use recommended media.	Use recommended media.	Refer to 'Media type'
2	You did not load the media straight into the printer.	Load the media straight into the printer.	Refer to 'Media handling'
3	The curled surface of media is up when loading.	Remove the curl in the media, or replace with new media.	Refer to 'Media handling'
4	You used the printer in a location with air conditioner or other location not appropriate for the specified environment	Use the printer in the specified environment.	Refer to 'Product Specifications'
5	You reused printed media.	Use new, not printed media.	Refer to 'Media type'

(15) Media is crooked while printing.

No.	Possible cause	Solutions	References
1	You did not use recommended media.	Use recommended media.	Refer to 'Media type'
2	The loading position of the media is not correct.	Load the media correctly.	Refer to 'Loading media'

(16) The printer is not connected to a computer using the Centronics interface.

No.	Possible cause	Solutions	References
1	You did not connect the Centronics interface cable correctly.	Connect the Centronics interface cable correctly.	Refer to 'Connecting the Centronics interface'
2	When the printing data is transferred from the computer, the DATA lamp on the operation panel is not lit.	If the DATA lamp is not lit, contact the computer maker.	-
3	The Centronics setting on the printer does not match the setting on the computer.	Make the Centronics setting on the printer so that it matches the setting on the computer.	Refer to 'System requirements'
4	The type of command that is currently set, does not match the command of a computer or a driver.	Match the command setting of the printer to the environment of a computer or a driver.	Refer to 'Menu setup on the operation panel'

(17) The printed lines are blurred.

No.	Possible cause	Solutions	References
1	You did not use recommended media.	Use recommended media.	Refer to 'Media type'
2	You used too thick or too thin media.	Use recommended media	Refer to 'Media type'
3	You used bond media.	Use recommended media.	Refer to 'Media type'
4	The printed surface is not the printable side.	Pay attention to the printable side to load media correctly.	Refer to 'Media handling'
5	Did you try head cleaning?	• Perform head cleaning. • Perform strong cleaning. • Clean the surface of the print head. • Perform long save cleaning.	Refer to 'Head cleaning' Refer to 'Cleaning the cleaning wiper'

(18) White or black lines on printouts.

No.	Possible cause	Solutions	References
1	You did not use recommended media.	Use recommended media.	Refer to 'Media type'

(19) Lines are missing.

No.	Possible cause	Solutions	References
1	The validity date of the ink cassette has been expired.	Use a new ink cassette.	Refer to 'Replacing ink cassettes'
2	You did not use recommended media.	Use recommended media.	Refer to 'Media type'
3	Did you try minor adjustments for image quality?	Try minor adjustments for image quality.	Refer to 'Alignment'

(20) "Bubbles" near the Heaters.

No.	Possible cause	Solutions	References
1	You did not use recommended media.	Use recommended media.	Refer to 'Media type'
2	You did not set the correct heater	Lower the temperature or turn off the Heater	Refer to 'controlling the heater elements'

(21) Top Feed problem.

No.	Possible cause	Solutions	References
1	Media jam occurred due to a need for Top feed.	Insert a minimum Top Feed	Refer to 'Top Feed menu'

6.3. ERROR MESSAGES

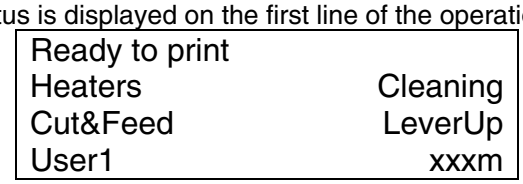
This chapter explains the messages displayed on the operation panel both when the printer works normally and when an error occurs, and possible solutions.

6.3.1. Status messages

The following are the status messages while the printer works normally.

(1) Displays the operational status (1)

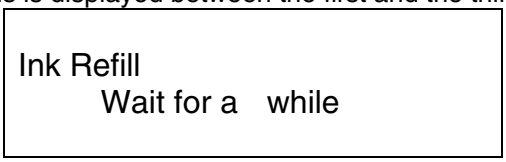
The following operational status is displayed on the first line of the operation panel.



No.	Display	Solutions	References
1	Ready to print	Waiting for the next operation. (Media has been loaded.)	-
2	Media End	The printer is waiting for the next operation. (No media has been loaded into the printer.)	Refer to 'Media handling'
3	Receiving	The printer is receiving data.	-
4	Converting	The printer is converting data.	-
5	Printing	The printer is printing.	-
6	Warning Waste Ink Tank	Replace the waste liquid tank.	Refer to 'Replacing the waste liquid tank'
7	Warning Ink Tube Life	Contact the dealer where you bought the printer or MUTOH's technical support center.	-

(2) Displays of the operational status (2)

The following operational status is displayed between the first and the third line of the operation panel.



No.	Display	Solutions	References
1	Ink Refill **min	The printer performs ink charging. Wait for a while.	Refer to 'Installing ink cassettes'
2	During cleaning **min	The printer performs head cleaning. Wait for a while.	Refer to 'Head cleaning'
3	Media Initial ********	The printer performs initial setting of media. Wait for a while. Indicates the media type setting made.	Refer to 'Setting media type'
4	During discharge Wait for a while	The printer performs head cleaning and ink discharging. Wait for a while.	Refer to 'Changing Ink Types'
5	During washing Wait for a while	The printer performs a head cleaning. Wait for a while.	Refer to 'Changing Ink Types'

6.3.2. Message type error display and solutions

The following are the message type error display and solutions.
The following message type errors are displayed when an error occurs while operating the printer.
When one of the following message type error displays appear, the printer may stop operation.
If the printer stops operation, solve the problem to delete the error message and restart the printer.

(1) Error messages regarding media feeding

The following error message is displayed on the first line of the operation panel.

→
```
Undefined Paper
Heaters          Cleaning
Cut&Feed         LeverUp
User1               xxxm
```

No.	Display	Descriptions	Solutions	References
1	Undefined media	The printer failed to detect the media. (The printer stops.)	Reload the media.	Refer to 'Loading media'
2	Media Slant	The media was fed at an angle into the printer. (The printer stops.)	Reload the media.	Refer to 'Loading media'
3	End Of Roll	Roll media runs out. (The printer stops.)	Load new roll media.	Refer to 'Replacing media'
4	Cover Open	The front cover is open. (The printer stops.)	Close the front cover.	-
5	Please Set Media	The pressure roller has been raised. There is no media.	Set the media and lower the pressure roller.	-
6	Media JAM Error	The media jammed. (The printer stops.)	Remove the jammed media and reset a media.	Refer to 'When media jams occur'

(2) Error messages regarding warnings of the remaining ink

The following error message is displayed on the forth line on the operation panel.

```
Ready to Print
Heaters          Cleaning
Cut&Feed         LeverUp
NearEnd              [1]
```

No.	Display	Descriptions	Solutions	References
1	Near End [*]	The ink is running short in the ink cassette. (The printer continues to perform.)	Prepare a new ink cassette.	Refer to 'Replacing ink cassettes'

Notes :

- The [*] shows the colour of the ink causing the error according to the following codes:
  - 1-8 : ink cassette slot number (Refer to 'Installing ink cassettes')
  - All : All ink cassettes

(3) Other error messages

The following error message is displayed on the forth line of the operation panel

```
InkStatus
No ink              [1 2 3 ]
```

No.	Display	Descriptions	Solutions	References
1	Ink Status Cassette [*]	Ink cassette(s) is (are) empty. (The printer stops.)	Replace the ink cassette(s)	Refer to 'Replacing ink cassettes'
2	Ink Status No Filled [*]	Initial filling has not been performed.	Perform initial filling of the ink.	Refer to 'Installing ink cassettes'
3	No original ink	You did not load MUTOH's recommended ink cassette. (The printer stops.)	Load MUTOH's recommended ink cassette.	Refer to 'Replacing ink cassettes'
4	4 Memory Status NoMemory DIMM 64 MB	Short of memory while converting or printing data.	Consider increasing the memory capacity.	-

Notes :

- The [*] shows the colour of the ink causing the error according to the following codes:
  - 1-8 : ink cassette slot number
  - All : All ink cassettes

6.3.3. Data error display and solutions

Following are data errors and possible solutions during printer operations.
Data errors are displayed when a communication error occurs between computer and printer.
If data error occurs, the following error messages are displayed and the printer stops.
Solve the problem to delete the error message and restart the printer.

```
Online Status
I * * * * Err.      [   ]
```

No.	Message	Descriptions	Solution	Reference
1	Online status I** Error [ ]	An error has occurred while receiving data.	Confirm the communication condition between computer and printer.	Refer to 'Menu setup on the operation panel'

Notes :

- *** in error messages are code numbers indicating what kind of error occurred.

6.3.4. Command error display and solutions

Following are command error descriptions and possible solutions during printer operations.
Command errors are displayed when an error has occurred while converting the command data sent from computer to printer.
If a command error occurs, the following error messages are displayed and the printer stops.
Solve the problem to delete the error message and restart the printer.

```
Command Status
MH * * * * Err.      [    ]
```

No.	Message	Descriptions	Solution	Reference
1	command status MH** Error [ ]	Invalid command data is sent from computer.	Make sure that the settings of the computer and the printer match.	Refer to 'Menu setup on the operation panel'

Notes :

- *** in error messages are code numbers indicating what kind of error occurred.
- [ ] may indicate the command code of the error.
- For the settings on a computer, refer to the computer's operation manual.

6.3.5. Error requiring a restart

Following are descriptions and solutions requiring a restart.
Errors requiring a restart are displayed when the following fatal error has occurred during printer operation.

- Foreign material disturbing the printer operation is involved in the printer.
- An electrical circuit (such as board, motor, or sensor) failure has occurred.
- An error on the control program has occurred.

If error requiring a restart has occurred, the printer prints and then stops (see below).
(1) Power relating to the driving system is shut off automatically.
(2) All indicator lights on the operation panel are turned on and beeps sound continuously.
(3) An error message is displayed on the operation panel.
Press any key on the operation panel to stop the beep sounds.

If an error requiring a restart has occurred, solve the problems to restart the printer and delete the error.
If the same error message is displayed again, contact your local MUTOH dealer. Be sure to inquire the code numbers of the error messages.

```
System Err          E * * *
OOOOOOOOO  [    ]
```

No.	Message	Descriptions	Solutions	References
1	E System error*** ○○○○○○○○○○ [ ]	An error which cannot be solved promptly has occurred.	1. If foreign materials such as a piece of media or media dust are involved in the driving system, remove them. 2. Make sure that the replaced parts are correctly installed. 3. Power OFF the printer. After 10 seconds or more, power it back ON.	Refer to 'When media jams occur ' Refer to 'Replacing consumables'

Notes :

- *** in error messages are code numbers indicating what kind of error occurred.
- [ ] may indicate the command code of the error.
- For the computer settings, refer to the computer's operation manual.

6.4. WHEN MEDIA JAMS OCCUR

If the loaded media gets jammed in the printer, follow the steps below to remove the media.

6.4.1. How to remove a piece of media (cut media)

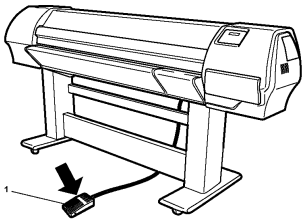
Step 1 : Press [F4] to raise the pressure rollers.

- The MEDIA SET lamp will turn on (orange).
- The following message is displayed on the operation panel.

→	Please Set Paper	
	Heaters	Cleaning
	Cut&Feed	LeverUp
	User1	xxxm

Notes :

- For raising or lowering the pressure rollers, you can use the foot switch instead of the operation panel.

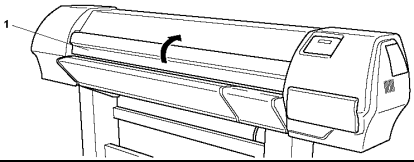


1. Foot Switch

Step 2 : If a piece of media or media dust is stocked in the printer, open the front cover and remove the piece of media or media dust.

Caution :

- Be sure not to pinch your fingers while opening and closing media cover.



1. Front Cover

Step 3 : If there is an error requiring a restart, power the printer OFF and ON again.

6.4.2. How to remove a piece of media (roll media)

To remove a piece of roll media, please refer to the User's Guide "Handling roll media on a Falcon II series printer and Rockhopper II series printer".

7. DAILY MAINTENANCE

7.1. INTRODUCTION

This chapter explains daily maintenance of the printer.

7.2. REPLACING CONSUMABLES

This section explains when to replace ink cassettes, roll media, or the cutting blade and the procedures for replacement.

7.2.1. Replacing ink cassettes

Read the following for information on when and how to replace ink cassettes.

(1) Replacement time

Replace ink cassettes under the following conditions.

a. The ink remaining in the ink cassette is low.
- The following message is displayed on the operation panel.
- Printing operation is continued.
- Prepare new ink cassettes before they are totally empty.

```
  Ready to Print
  Heaters          Cleaning
  Cut&Feed         LeverUp
→ NearEnd                [1]
```

b. The ink cassette becomes empty.
- The following message is displayed on the operation panel.
- Printing operation stops.
- Replace with a new ink cassette as soon as possible.

```
InkStatus
   No Ink   [123]
```

Notes :

- When the ink runs out or is low, the ink colour is indicated as follows:
  - 1-8: The number of the ink cassette slot (Refer to 'Installing ink cassettes')
  - All: All inks

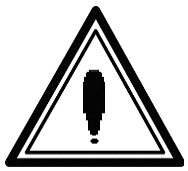
(2) Types

Notes :

- For detailed information on ink cassettes, refer to the following.
  Price List
- The printer is designed for use with Eco-Solvent Plus ink cassettes. If you do not genuine products, printouts may become faint and the printer will not be able to detect the end of ink.
- The warranty will not cover (repairs will require a fee) a breakdown.

(3) Replacement procedure

Follow the steps below to replace ink cassettes.



Caution :

- When handling ink cassettes, be careful that ink does not get in your eyes or on your skin. However, if this happens, flush immediately with water.
  Otherwise, your eyes may become congested or slightly inflamed. If you feel discomfort, consult a doctor immediately.
- Do not disassemble ink cassettes. Otherwise, ink may get in your eyes or on your skin.
- Only use Eco-Solvent Plus ink and appropriate cleaning liquid. Using other ink (e.g. dye or pigment) could cause permanent damage to the printer.

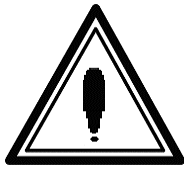
Notes :

- Do not shake ink cassettes. Doing so may cause ink to leak out.
- Do not disassemble ink cassettes. Disassembled ink cassette cannot be used.

Step 1 : If the printer is turned on, make sure of the following

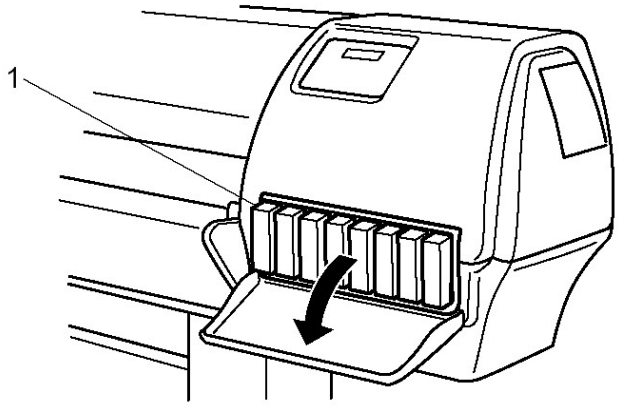
- Printing or other operations are not performed.
- Make sure that the display on the operation panel shows the normal state.
- The MEDIA SET light on the operation panel goes off.

Step 2 : Open the ink compartment cover.



Caution :

- Be sure not to pinch your fingers while opening and closing the ink compartment cover.

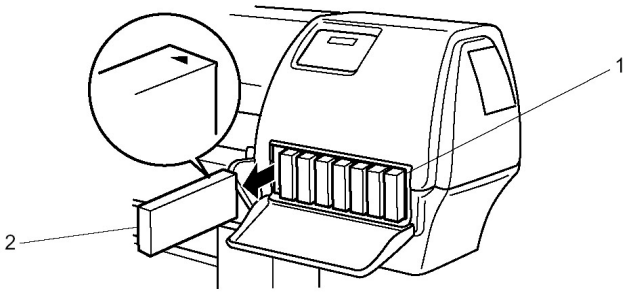


1. Ink Compartment

Step 3 : Remove the ink cassette from the ink cassette slot.

Notes :

- Dispose the used ink cassette by putting it in a plastic bag in accordance with local regulations or laws.



1. Ink cassette slot	2. Ink cassette

Step 4 : Take the new ink cassette from its package.

Notes :

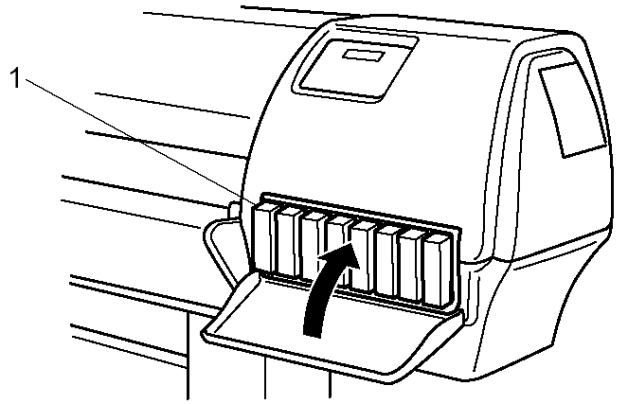
Unpack the ink cassette just before installing it into the ink cassette slot. If you leave the cassette unpacked for a long time, the printer may not be able to print correctly.

Use up ink cassettes within two years from the date printed on the cassette packages.

Replace ink cassettes if after six months since installation.

Step 5 : Install the ink cassette following the steps in "Installing ink cassettes".

Step 6 : Close the cover of the ink compartment.



1. Ink Compartment

Step 7 : Make sure that the display on the operation panel returns to normal status.

Notes :

- If you replace ink cassettes while printing, the printer resumes printing.

7.2.2. Replacing the cutting blade

Read following information on when and how to replace the cutting blade.

(1) Replacement time

Replace the cutting blade under the following conditions.
a. Media cannot be cut cleanly
The message "media Cut Error" appears on the operation panel if a media cutting error occurs.

→	Paper Cut Error
	Heaters Cleaning
	Cut&Feed LeverUp
	User1 xxxm

b. When the cut edge has scuffing

(2) Replacement procedure

Follow the steps below to replace the cutting blade.

Step 1 : If the printer is turned on, make sure of the following
- Printing or other operations are not performed.
- Make sure that the display on the operation panel shows the normal status.
- The MEDIA SET light on the operation panel goes off.

Step 2 : Follow "Menu setup on the operation panel" and display the cutting blade replacement menu on the operation panel.(Refer to 'Cutter change menu')

* CutterChg. *	
No Yes	← F2
(1/1)	

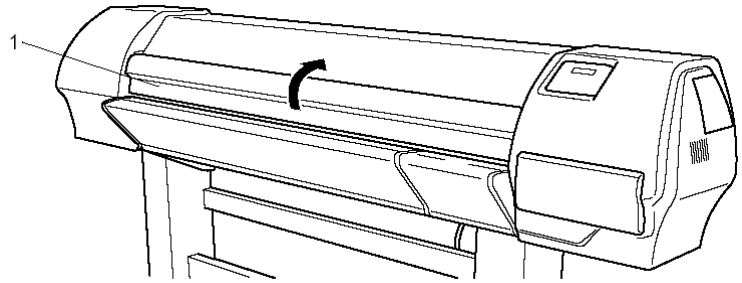
Step 3 : Select "Yes" by pressing the [F2] key on the operation panel.
- The printer prepares for cutting blade replacement.
- The carriage moves to the cutting blade replacement position.
- The following message is displayed on the operation panel.

Notes :

- If you did one of the things mentioned in step 3, the printer does not replace the cutting blade and returns to the setup menu.
- Press the [CANCEL] key on the operation panel.
- Select "NO" then press the [F1] key on the operation panel.

* CutterChg. *
Changed cutter?
→ ENTER

Step 4 : Open the front cover.



1. Front cover

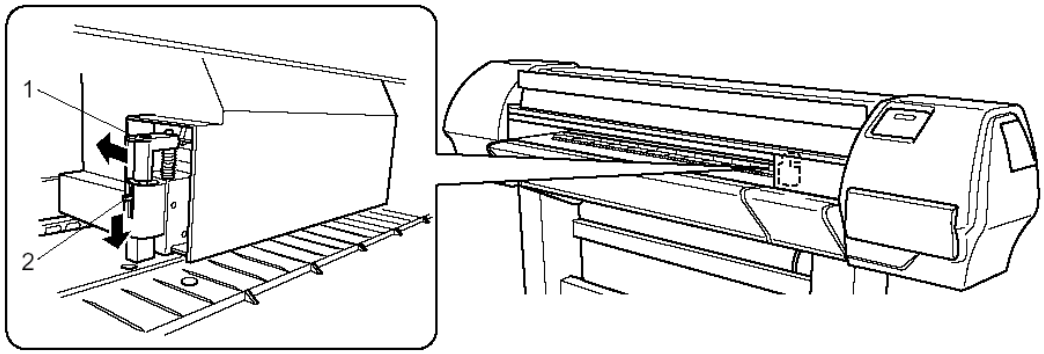
Notes :

- Replace the cutting blade as quickly as possible. If you leave the carriage at the cutting blade replacement position, the head may be clogged with ink.

Step 5 : While pressing the cutting blade holder tab, rotate the cutting blade holder lever in the direction shown in the diagram.

Notes :

- Do not push the cutting blade holder tab strongly or release it suddenly. Doing so may cause the spring incorporated in the cutting blade holder to fly off.
- Do not push in the cutting blade holder. Doing so may cause the cutting blade to damage the inside of the printer.



1. Cutting blade holder lever	2. Cutting blade holder

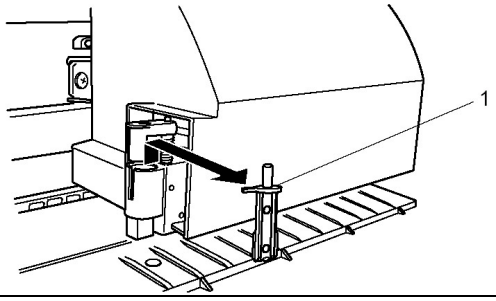
Step 6 : Take out the cutting blade.

Caution :

- Do not touch the edge of the cutting blade to avoid injury.
- Do not drop the cutting blade or apply it on hard material. Doing so may damage or break the cutting blade.

Notes :

- Dispose the used cutting blade; put it in a plastic bag in accordance with local regulations or laws.

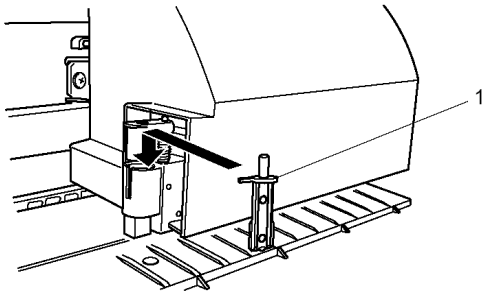


1. Cutting blade

Step 7 : Insert the new cutter into the media cutting blade holder as shown below.

Notes :

- Be sure not to let the spring incorporated in the cutter holder fly out.

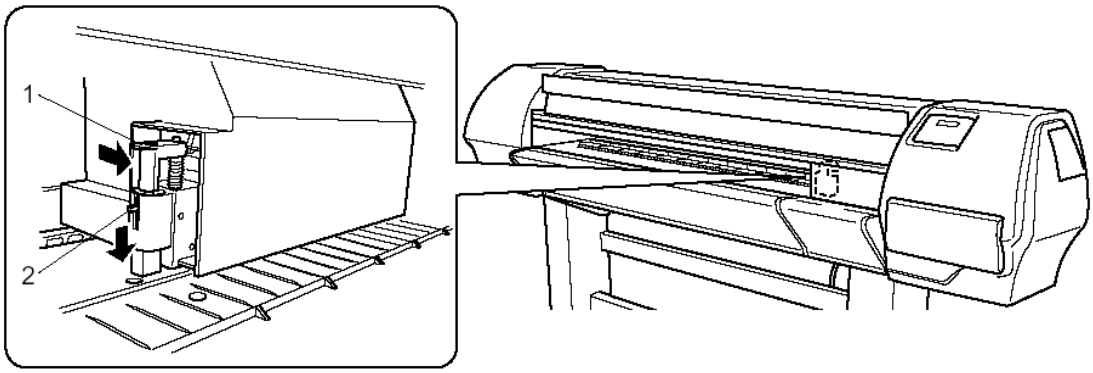


1. Cutting blade

Step 8 : While slightly pressing the cutting blade holder tab, return the cutting blade lever to its original position.

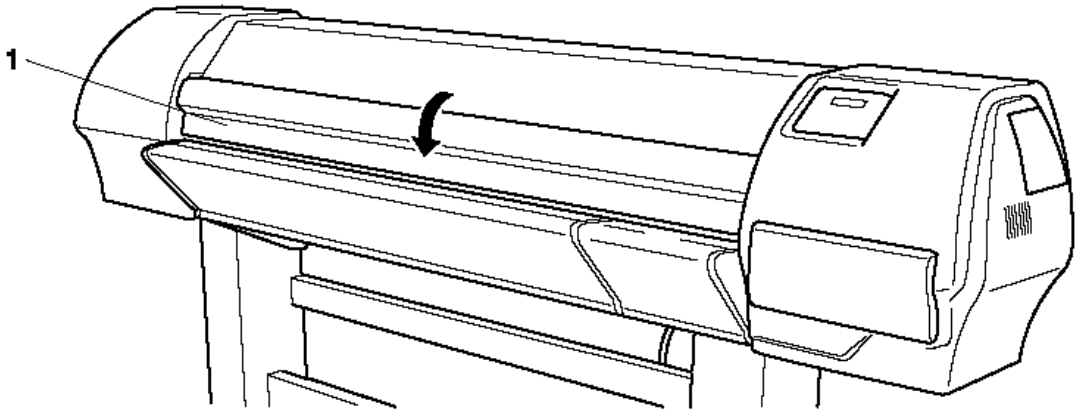
Notes :

- Do not push the cutting blade holder tab strongly or release it suddenly. Doing so may cause the spring incorporated in the cutting blade holder to fly off.
- Do not push in the cutting blade holder. Doing so may cause the cutting blade to damage the inside of the printer.
- Attach the cutting blade holder lever correctly, referring to the diagram below. If it is not attached correctly, errors may occur.
  If an error occurs, make sure that the cutting blade holder lever is attached correctly.



1. Cutting blade holder lever	2. Cutting blade holder

Step 9 : Close the front cover.



1. Front cover

Step 10 : Press the [ENTER] key on the operation panel.

- The carriage returns to its original position and returns to menu 6/7.

	* SetupMenu *	
F1 →	CutterChg. WiperClean	← F2
F3 →	TankChg. TubingFlush	← F4
	(6/7)	

- The printer returns to the normal status when pressing the [CANCEL] key.

Ready to Print	
Heaters	Cleaning
Cut&Feed	LeverUp
User1	xxm

Step 11 : Cutting blade replacement has been finished.

7.2.3. Replacing the waste liquid tank

Read following information on when and how to replace the waste liquid tank.

(1) Replacement Time

Replace the waste liquid tank under the following conditions.
a. When the waste liquid tank is nearly full.

- Following message is displayed on the operation panel.
- Printing continues.
- Prepare a new waste liquid tank before the waste liquid tank becomes full.

→

Warning WastInkTank	
Heaters	Cleaning
Cut&Feed	LeverUp
User1	Om

(2) Replacement Procedures

Follow the steps below to replace the waste liquid tank.

Step 1 : Check the following if the power of the printer is ON.

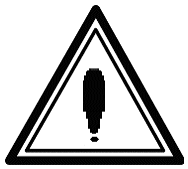
- Printer is not printing.
- Operation panel is in normal status.
- Media setting light on the operation panel is off.

Step 2 : Follow "Menu setup on the operation panel" and display the tank replacement menu on the operation panel. (Refer to 'Tank change menu')

* TankChg. *		
No	Yes	← F2
	(1/1)	

Changed wasted ink tank?
ENTER or CANCEL

Step 3 : Open the cap of the waste liquid tank.



Caution :

- Do not bend or pull the waste fluid tube. Doing so may cause that the waste fluid will leak out and malfunction in the product.

Step 4 : Remove the waste liquid tank from the tank tray of the stand.

Notes :

- Put the used waste liquid tank in a plastic bag and follow the local regulations when disposing.

Step 5 : Open the cap of a new waste liquid tank and put the tank to the printer.

Step 6 : Press the [ENTER] key on the operation panel.

- The printer returns to menu 6/7.

	* SetupMenu *	
F1 →	CutterChg. WiperClean	← F2
F3 →	TankChg. TubingFlush	← F4
	(6/7)	

- The printer returns to the normal status by pressing the [CANCEL] key

Ready to Print	
Heaters	Cleaning
Cut&Feed	LeverUp
User1	xxxm

The replacement of the waste liquid tank has been completed.

7.3. CLEANING

You need to clean the printer periodically to keep it in best working condition.

Warning:

- **Do not insert or drop metal or inflammable objects into openings, such as ventilation outlets. Doing so may result in electrical shock and fire.**
- **Stop using your printer if a liquid is spilled into it. This may cause electrical shock or fire. Power the printer OFF as soon as possible, unplug the power cord and then contact your local MUTOH dealer.**

Caution:

- Be sure to power OFF the printer and unplug the power cable from the outlet before cleaning the printer.
- Do not use thinner, benzene, alcohol or other active agents. Doing so may result in damage or paint peeling from the casing.
- Be careful not to spill water inside the printer. Doing so may result in a short circuit.
- Never open the covers fixed with screws. Doing so may result in electrical shock or malfunctioning of the printer.

Following are instructions for cleaning the printer.

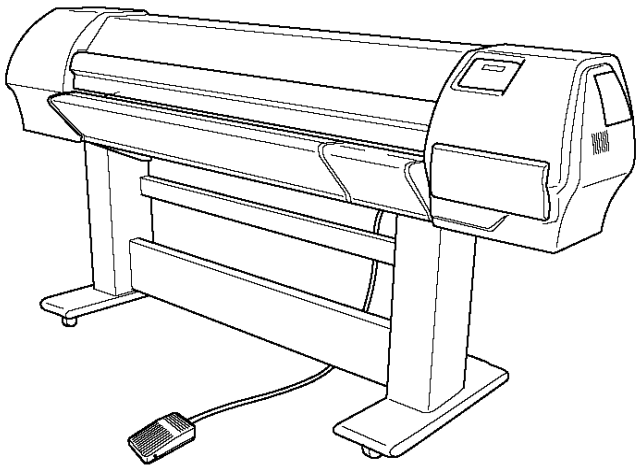
7.3.1. Cleaning the outer case

(1) Cleaning frequency

Clean once a month.

(2) Cleaning procedure

Remove dust or smudges on the outer case with a soft cloth.



7.3.2. Cleaning the inside of the printer

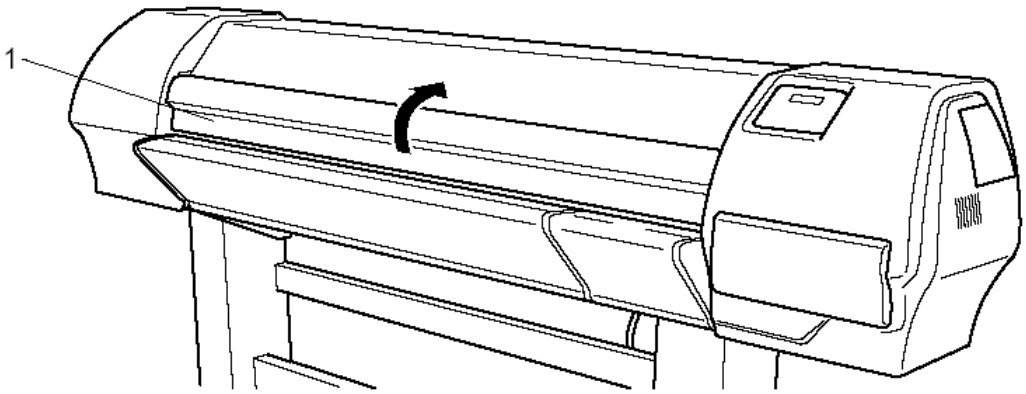
(1) Cleaning frequency

Clean once a month.

(2) Cleaning procedure

The following are instructions for cleaning the inside of the printer.
Follow the steps below.

Step 1 : Open the front cover.



1. Front cover

Step 2 : Use a soft brush to carefully clean away any dust or dirt on the pressure rollers.

Notes :

- Do not blow off media dust inside the printer using an air dusting machine. Doing so may cause noise to occur from inside the printer.

Step 3 : Use a cloth soaked in cleaning liquid and squeezes it well, wipe off media dust and ink from the platen.

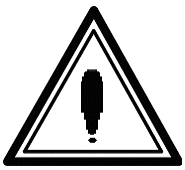
7.3.3. Head cleaning

If printouts become faint or partially missed, perform head cleaning to clean the surface of the head and the nozzles.
Follow the steps below to perform head cleaning.

Notes :

- Remove media before performing head cleaning.
  If you perform head cleaning with media installed, the head may contact the media.

Step 1 : Make sure that the state of the product is normal.

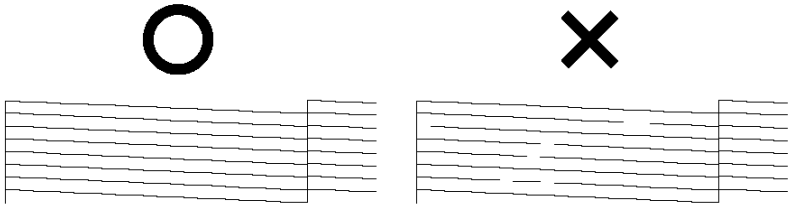


Caution :

- Be sure not to pinch your fingers while opening and closing the front cover.

Step 2 : Refer to "Testprinting" to perform nozzle check printing.

Step 3 : Check if the print head, referring to the diagram below.



Step 4 : Check the printer is in the normal status.

Ready to Print		
Heaters	Cleaning	← F2
Cut&Feed	LeverUp	
User1	xxxm	

Step 5 : Press the [F2] key on the operation panel.
- ➢ The printer enters the cleaning menu.

* Cleaning *		
	Normal	← F2
F2	→ ENTER	

Step 6 : Press the [F2] key on the operation panel to change the parameters.

Key	Parameter	Description
F2	Small	Small cleaning is performed.
	Normal	Normal cleaning is performed.
	Strong	Strong cleaning is performed.

Step 7 : Press the [ENTER] key on the operation panel to start the head cleaning.

Notes :

- If the [Cancel] key has been pressed instead of the [ENTER] key after changing the parameters, the printer returns to the normal status without performing a head cleaning.

```
Cleaning
            Rest ** min
```

Step 8 : When the head cleaning has been completed, the printer returns to the normal status.

```
Ready to Print
Heaters              Cleaning
Cut&Feed             LeverUp
User1                   xxxm
```

Step 9 : Perform a nozzle check again and check the print head.

7.3.4. Cleaning the cleaning wiper

Following are instructions for cleaning the cleaning wiper.
Follow the steps below to clean the cleaning wiper.

Step 1 : Replace an ink cassette.

Notes :

- For instructions on replacing an ink cassette, refer to "Replacing ink cassettes".

Step 2 : If the printer is turned on, make sure of the following
- Printing or other operations are not performed.
- Make sure that the display on the operation panel shows the normal status.
- The MEDIA SET light on the operation panel goes off.

Step 3 : Follow "Menu setup on the operation panel" and display the cleaning wiper menu on the operation panel.(Refer to 'Wiper clean menu')

	* SetupMenu *	
F1 →	CutterChg. WiperClean	← F2
F3 →	TankChg. TubingFlush	← F4
	(6/7)	

* WiperClean *	
No Yes	← F2
(1/1)	

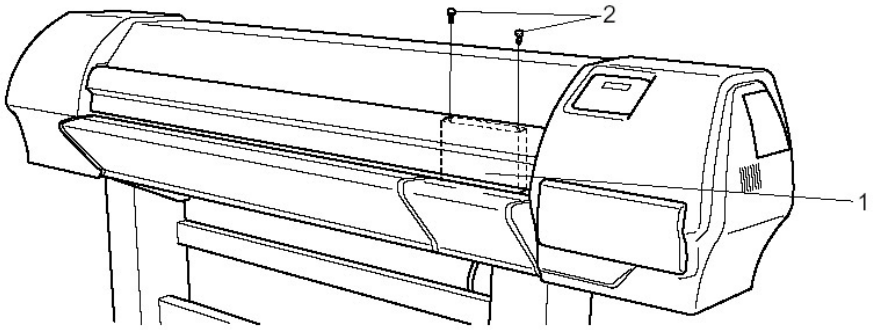
Step 4 : Select "Yes" by pressing the [F2] key on the operation panel.
- The printer enters the cleaning wiper mode.
- The carriage moves to the waiting position for cleaning the wiper.
- The following message is displayed on the operation panel.

Notes :

- If you did one of the things mentioned in step 5, the printer does not clean the cleaning wiper and returns to the setup menu.
  - Press the [CANCEL] key on the operation panel.
  - Select "No" and pressed the [F1] key on the operation panel.

* WiperClean *
Changed wiper?
→ ENTER

Step 5 : Remove two screws on the carriage cover.

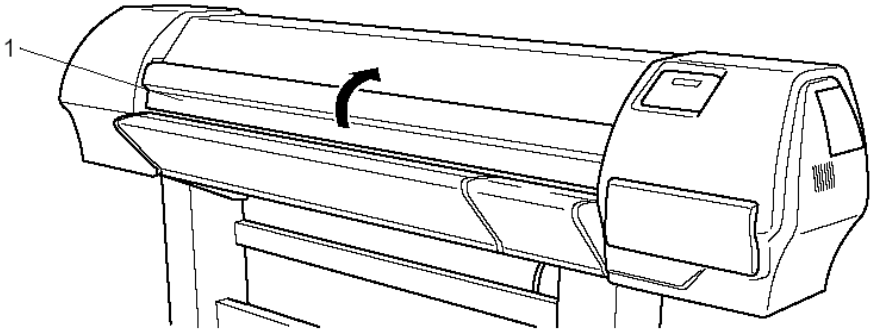


1. Carriage cover	2. Screw

Step 6 : Open the front cover.

Caution :

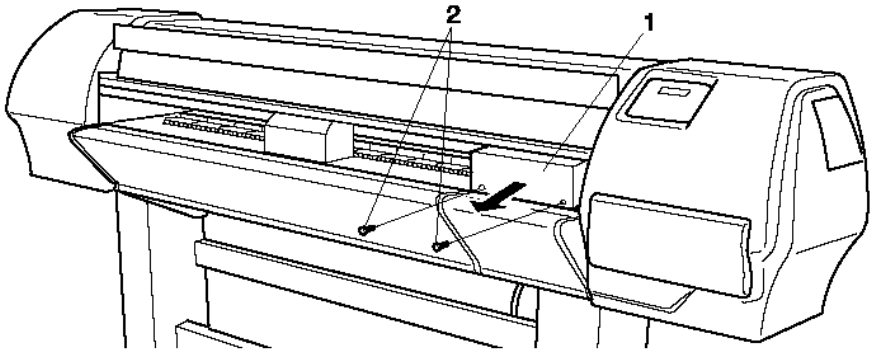
- Be sure not to pinch your fingers while opening and closing the front cover.



1. Front cover

Step 7 : Remove two screws underneath the carriage cover.

Step 8 : Remove the carriage cover.

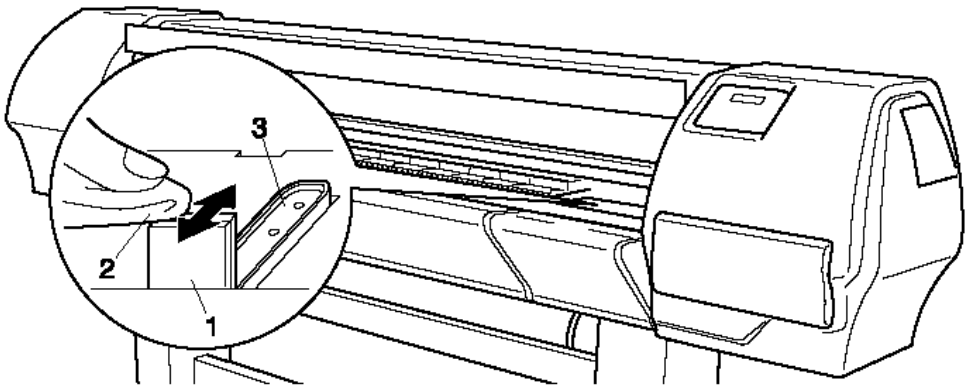


1. Carriage cover	2. Screw

Caution :

- Do not touch the cleaning wiper or the head cap unit while cleaning the cleaning wiper. Doing so may result in poor head cleaning because of oil on your hands.

Step 9 : Use the cloth dampened with cleaning liquid to wipe off ink on the cleaning wiper.



1. Cleaning wiper	2. Cleaning cloth
3. Head cap unit	

Step 10 : Reinstall the carriage cover following steps 5 to 8 in reverse order.

Notes :

- When using this product, the carriage cover must be installed.

Step 11 : Press the [ENTER] key on the operation panel.

➢ The carriage moves to the cap position. The printer returns to menu 6/7.

	* SetupMenu *	
F1 →	CutterChg. WiperClean	← F2
F3 →	TankChg. TubingFlush	← F4
	(6/7)	

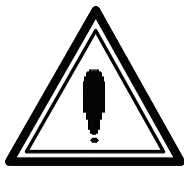
➢ The printer returns to the normal status after pressing the [CANCEL] key

Ready to Print	
Heaters	Cleaning
Cut&Feed	LeverUp
User1	xxxm

Step 12 : Cleaning the wiper has been finished.

7.4. CHANGING INK TYPES

This chapter explains the procedures to change ink types.
Follow the procedures below to change the ink types for printing.



Caution :

- Insure that the ink does not get in your eyes or touches your skin when handling the ink cassette. If the ink gets in your eyes or touches your skin, wash it in running water. Otherwise, it may cause a bloodshot eye or minor inflammation. If any of those symptoms are seen, consult a doctor immediately.
- Do not disassemble the ink cassette. This may cause the ink to get in the eyes or touch the skin.
- Only use Eco-Solvent Plus ink and appropriate cleaning liquid. Using other ink (e.g. dye or pigment) could cause permanent damage to the printer.

Notes :

- Do not shake the ink cassette. The ink may leak from the cassette.
- Do not disassemble the ink cassette. The disassembled ink cassette is no longer usable.
- Refer to the price list for the ink type and other details of the ink cassette. Price List
- Use only Mutoh recommended ink cassettes.
  This printer is adjusted under the condition of using only the recommended Mutoh ink cassettes. Using other types of ink cassette may cause:
- Faint printing or the ink cannot be properly detected.
- The warranty will not cover (repairs will require a fee) a breakdown.

Notes :

- Refer to "Operating from the operation panel" for the key operation for the setting menu.
- Refer to "Replacing ink cassettes" for the procedures to load and unload the ink cassette.

Step 1 : Check the following when the power of the printer is ON.

- The printer is not printing.
- The operation panel is in normal status.
- The media setting light on the operation panel is OFF.

Step 2 : Follow "Menu setup on the operation panel" and display the Ink Manager menu.

```
* Ink Manager *
HeadWash
InkLoad                 InkChange  ← F4
                            (1/1)
```

Step 3 : Press the [F4] key to select 'Ink Change'.

```
          * InkChange *
F1 →      No                Yes  ← F2

                            (1/1)
```

Step 4 : Select "YES" and press the [F2] key on the operation panel.
- Head Cleaning starts.
- The following information is displayed on the operation panel.

Notes :

- To not perform an ink change.
  - Press the [CANCEL] key on the operation panel.
  - Select "NO" and press the [F1] key on the operation panel.

The process consists of several cleaning loadings, several air loadings and one ink loading. On the display of the operation panel a time indication is mentioned on the fourth line.

Message	Time 50"	Time 64"	Time 87"
Please remove cart. (*)			
Ink Discharge (*)	1	1	1
Please insert Cleaning cart (*)			
During washing wait for a while (*)	5	5	10
Remove cassettes			
During washing wait for a while	6	6	7
Please insert ink cart.			
Ink refill	8	8	8
The end			

(*) = This will be asked 7 times.

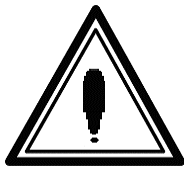
Step 5 : The change of ink types has been completed.

7.5. TRANSFER AND TRANSPORTATION

This section explains transferring and transporting the printer.

7.5.1. Transferring the printer

Following are instructions for transferring the printer.



Caution :

- Keep the printer horizontally during transfer.
- Do not tilt the printer, stand it against a wall, or turn it upside down. Doing so may cause ink to leak inside the printer. Also, movement after transport is not covered by the warranty.
- Have two or more people to transport the printer.

(1) Before the transfer

If you are using the stand, follow the steps below to transfer the printer.

Step 1 : Make sure the printer is turned off.

Step 2 : Make sure the head is in the right edge position (capping position).

Step 3 : Disconnect the power cable and all other cables.

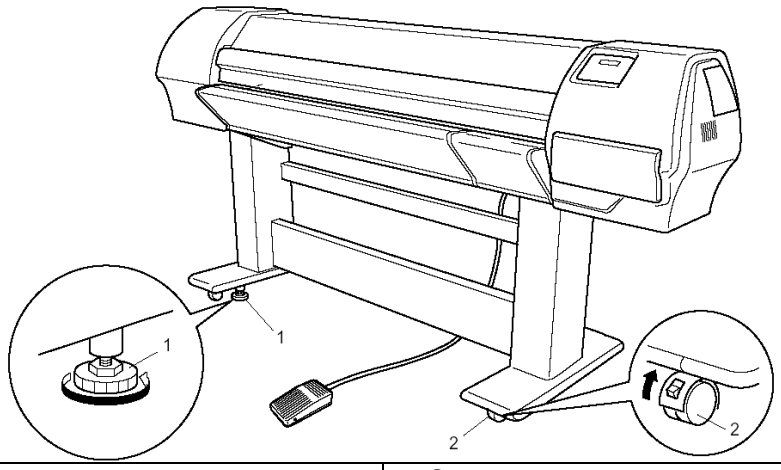
Step 4 : Release the locks on the casters.

Step 5 : The four adjusters are turned in the direction shown on the diagram.

Step 6 : Transfer the printer.

Notes :

- The caster attached to the stand has been designed for transferring the printer during short distances.



1. Adjuster	2. Caster

(2) After the transfer

Follow the steps below to prepare the printer to be used after the transfer.

Step 1 : Make sure that you place the printer on an adequate place.

Step 2 : Lock the casters after transferring the printer.

Notes :

- For connecting cables, refer to the following.
  → Connecting the power cable
  → Connecting the printer to your PC

Step 3 : Connect the power cable and other cables.

Notes :

- For connecting cables, refer to the following.
  → Connecting the power cable
  → Connecting the printer to your PC

Step 4 : Perform a nozzle check to check if the printer head has clogged.

Notes :

- To perform the nozzle check, refer to "NozzleCheck".

Step 5 : Perform a fine adjustment of image quality.

Notes :

- To perform an adjustment of image quality, refer to "Alignment".

7.5.2. Transporting the printer

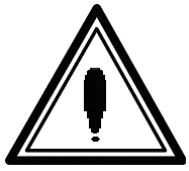
When you transport the printer, the printer should be repacked in the original box and packing materials, to protect it from vibration or impact.

Notes :

- When you transport the printer, contact your local MUTOH dealer for assistance.

7.6. PERIODICAL SERVICES

This section describes the periodical services required for this machine.
The periodical services ensure stable printout quality of the machine.
In the periodical services, some service parts may be checked, cleaned, or replaced.



Caution :

There are two parts of periodical service, namely the parts that can be replaced by the end-user and the parts that need to be done by authorized Mutoh technicians.

7.6.1. Service by end-user

Perform periodical inspections according to the table below.

N°	Part number	Quantity	Action
1	ME-80771	4	Change wipers
2	DF-43694 + DE-35399	2 + 1	Change sponge at back op capping station
3	/	/	Clean wipers
4	/	/	Clean caps in maintenance station
5	/	/	Clean around bottom of heads (not nozzle plate)
6	AP-51600	1	Change sponge in wiper arm

Maintenance Cycle		Month											
		1	2	3	4	5	6	7	8	9	10	11	12
	1						x						x
	2			x			x			x			x
	3	4x	4x	4x	4x	4x	4x	4x	4x	4x	4x	4x	4x
	4	4x	4x	4x	4x	4x	4x	4x	4x	4x	4x	4x	4x
	5	4x	4x	4x	4x	4x	4x	4x	4x	4x	4x	4x	4x
	6			x			x			x			x

7.6.2. Service by authorised Mutoh technician

Perform periodical inspections according to the table below.

N°	Part number	Quantity	Action
1	MY-42110	16	Replace the dampers.
2	MY-80300	4	Replace the pumps.
3	ME-18280	8 x 0.8 m	Replace the tubing from the pumps to the waste bottle
4	MY-35085 + ME-80385 + ME-60014	1+ 1 m +1	Replace the right spitting box + tube + L connection
5	KY-80627	1	Replace the capping station.
6	/	/	Apply grease on head up-down cams if needed.
7	/	/	Apply grease on Y-motor belt if needed.
8	/	/	Apply grease on roller path carriage if needed.
9	/	/	Apply grease on capping station camm + gears if needed.
10	/	/	Clean the maintenance station area.
11	/	/	Remove dust in fan area underneath print platform.

N°	Month											
	1	2	3	4	5	6	7	8	9	10	11	12
1												X
2						X						X
3												X
4						X						X
5												X
6						X						X
7						X						X
8						X						X
9						X						X
10						X						X
11						X						X

Notes :

- All cleaning in "Ink areas" must be done with Mutoh water based cleaning solution.
- Above maintenance cycle is based on use:
  8 hours / day, 5 days / week, 44 weeks / year.
  If machine is used more, maintenance periods will come earlier.

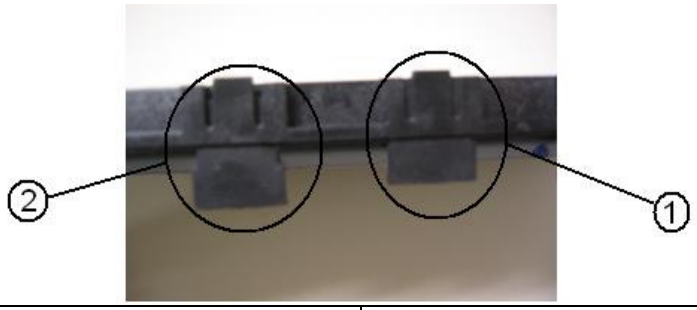
7.7 END-USER SERVICE

7.7.1 Replacing the wipers and wiper arm

7.7.1.1. Installing the new wipers in the wiper arm.

Please follow the procedure mentioned below.

Step 1 : Click the new wipers in the new wiper arm in the positions and manner shown in the pictures below.



1 = well positioned wiper	2 = malpositioned wiper

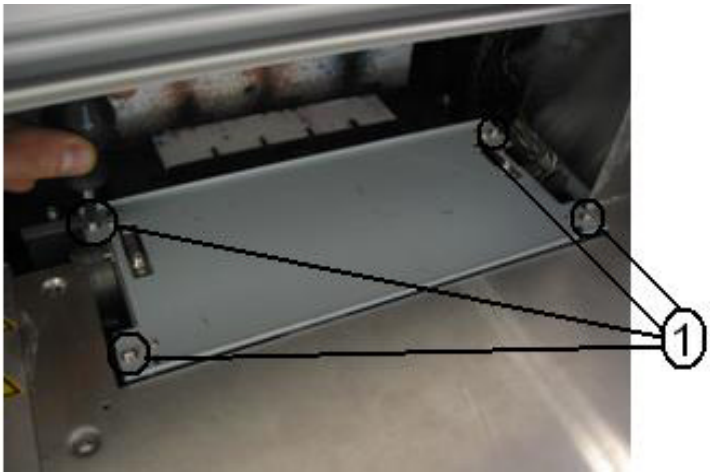
For Rockhopper II 50" and 64"	For Rockhopper II 87"
Positions : 3, 4, 5, 6	Positions : 1, 3, 5, 7

7.7.1.2. Installing the wiper arm

Step 1 : Power ON the printer and go to the "WiperClean-Menu". This will cause the unlocking of the carriage.

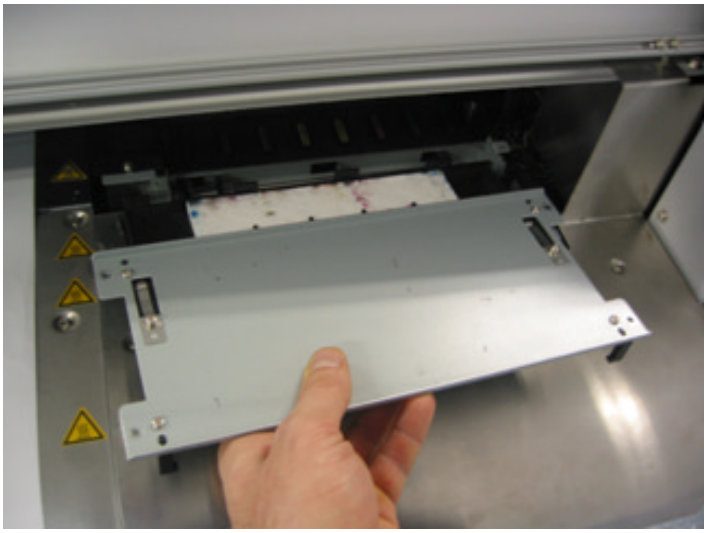
* WiperClean * Changed wiper? → ENTER

Step 2 : Slide the carriage to the left side of the machine so you can remove the four screws of the wiper assembly.



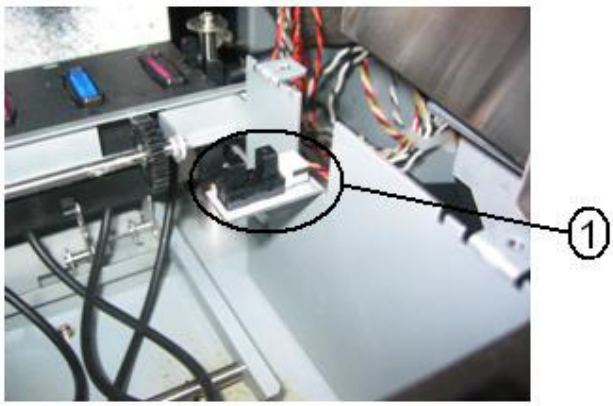
1 = screws

Step 3 : Remove the wiper assembly



Notes :

- When removing the wiper assembly, be careful not to break the sensor positioned below the wiper assembly.



1 = sensor

Step 4 : Remove the wiper arm and re-install the new one.

1 = Wiper arm assembly	2 = T plate

Step 5 : To reinstall the wiper assembly, please reverse the removal procedure.

Step 6 : After complete reinstallation, clean the wipers using isopropanol.

7.7.2 Replacing the absorbents

To replace the absorbents, please follow the instructions mentioned below.

Step 1 : Power ON the printer and go to the "WiperClean-Menu". This will cause the unlocking of the carriage.

* WiperClean *	
No	Yes ← F2
	(1/1)

Step 2 : To select "YES", press the [F2] key on the operation panel.
- The printer enters the cleaning wiper mode.
- The carriage moves to the waiting position for cleaning the wiper.
- The following message will appear on the operation panel.

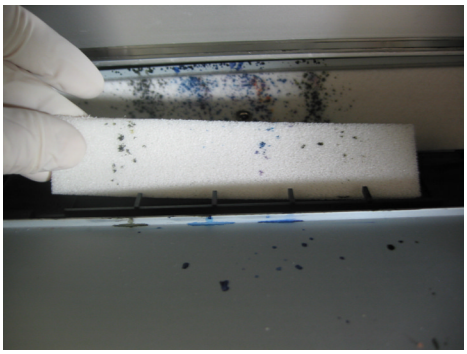
* WiperClean *
Changed wiper?
→ ENTER

Step 3 : Open the front cover.

Step 4 : Carefully remove the absorbent and install a new absorbent. Make sure the absorbent is well positioned.

Notes :

- It is recommended to wear gloves.



Step 5 : Press the [ENTER] key on the operation panel.
- The carriage moves back to the capping station.
- The printer returns to the normal status.

Step 6 : Replacing the absorbent has been finished.

8. APPENDIX

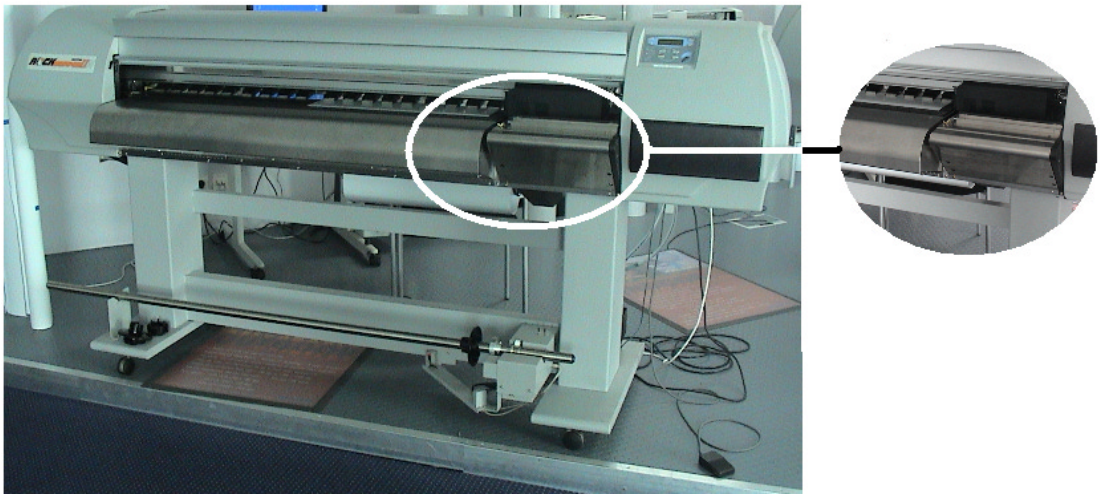
8.1. INTRODUCTION

This section explains the specifications and installation procedures for optional parts.

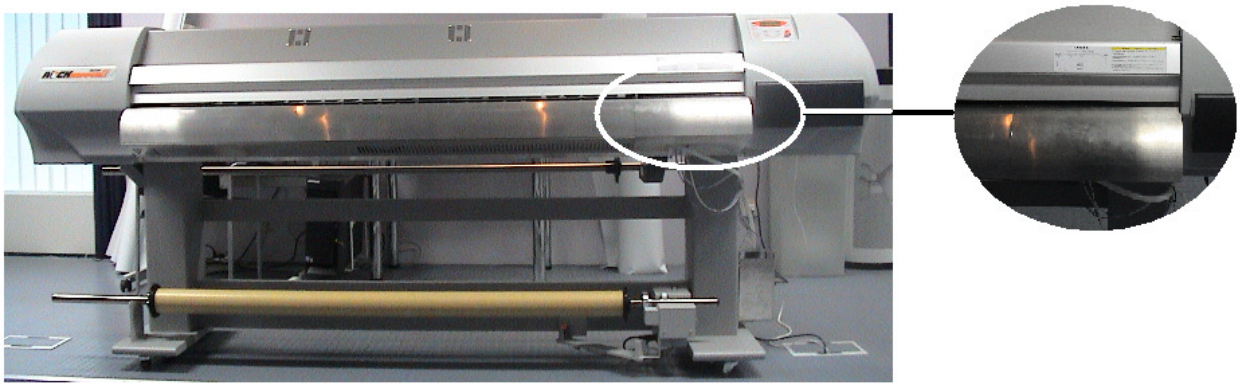
8.2. 2 OR 4 HEATER

To verify if your printer is equipped with 2 or 4 heaters, please refer to the photo's mentioned below.

Rockhopper II 2 heater printer



Rockhopper II 4 heater printer



8.3. PRODUCT SPECIFICATIONS

Printers		**50"- model**	**64"- model**	**87"- model**
Technology		Drop-on-demand Micro Piezo Inkjet Technology. Variable drop mass output between 5.4 ng and 41.5 ng		
Media Thickness Compensation		Automatic media thickness compensation. Variable – RIP controlled – Head Height		
Maximum Media Widths		1273 mm	1651 mm	2280 mm
Maximum Print Widths		1263 mm	1641 mm	2250 mm
Media	Thickness Diameter / Core Weight	Range: 0.08 mm – 1.1 mm Maximum: 150 mm / 2" or 3" Maximum: 50 kg		
Colour Channels		8 colour channels – 4 or 6 process colour output		
Inks		Eco-Solvent Plus 2xCMYK speed set-up Eco-Solvent Plus CMYKLcLm photo tone rendering set-up		
Ink Cassette Capacity / Type		220 ml / smart chip ink type & order sensing		
Print Modes & Panel Control Options		Uni & Bi-directional output, Interweaving, Mirror Output, Multi Copy, Ink Status, Origin Control		

Speed Overview Table (*) 914mm (36") wide output	50 & 64		87	
Ink Set-Up	2 x 4 Colours	6 Colours	2 x 4 Colours	6 Colours
360 x 360 ○○○ ○	5.7 – 37.7	2.9 – 19.6	5.7 – 37.7	3.9 – 27.7
720 x 360 ○	5.8 – 22.8	2.9 – 11.5	5.9 – 23.1	5.3 – 20.6
720 x 720 ○○○ ○	2.9 – 11.4	1.4 – 5.6	2.9 – 11.5	2.6 – 10.2
1440 x 720 ○	2.9 – 5.9	1.4 – 2.8	3.0 – 6.0	2.6 – 5.2
1440 x 1440 ○	1.4 – 2.9	0.7 – 1.5	1.5 – 3.0	1.3 – 2.6

Output speeds are given for 914 mm (36") output.
50" output is 7 % faster, 64" output is 12 % faster and 87" output is 18 % faster.
For each mode, the minimum (Super High Quality) and maximum speed (Super Draft) are given.
Mode dependent, there are between 2 and 6 speed levels per mode, accessible via print direction selection and interweave control from the RIP software.
Top speeds indicated are super draft modes and do not guarantee production output quality on all media types.
○○○ Variable Drop Compatible ○ Fixed Drop Compatible

LCD Display	Backlight LED – 4 lines x 20 characters
Take-up System (standard)	Automated
Roll Media Core	2" & 3"
Interface	Centronics, IEEE 1284 compatible / Network, High Speed Interface (standard high-speed interface card – 4 Mb/s).
Graphics Command Language	RTL-PASS, MH-GL, MH-GL/2

Printers	50"- model	64"- model	87"- model
Power Consumption	1100 VA 80 VA in stand-by mode	1300 VA 80 VA in stand-by mode	1400 VA 100 VA in stand-by mode
External Dimensions in mm (W x D x H) Weight	2700 x 750 x 1250 170 kg	3100 x 750 x 1250 195 kg	3700 x 750 x 1250 215 kg
Power Supply	AC 100 – 120 V / AC 220 – 240 V auto-switching		
Working Environment	Temperature: 10 – 35 °C Humidity: 20 – 80 % (no condensation)		
Noise Level	Operating: 54 dB or less		
Standard	VCCI (Class A), FCC (Class A), UL, CE, CCIB		
Standard Items	Hard Disk: 20.3 GB – Stores 16 jobs – Up to 99 copies/job – PostScript RIP included		
Optional Item	Extra Scroller Bars – Take-up System – Roll-off / roll-up system		

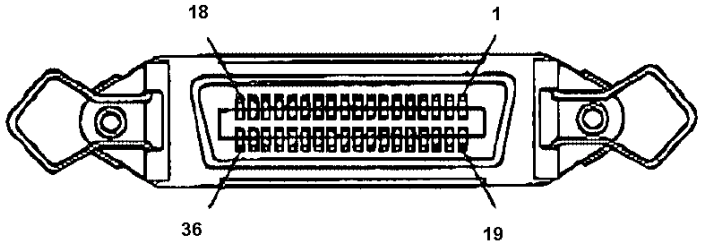
Specifications are liable to changes without prior notice. All trademarks mentioned are property of their respective owners.

8.4. INTERFACE SPECIFICATIONS

This section explains the specifications for the interfaces supported by this product.

8.4.1 Centronics Bidirection Parallel Interface:IEEE1284 Specifications

(1) Interface Specifications

Item	Specifications
Transmission modes	Compatible , Nibble , ECP Mode
Data length	8 bits
Transmission direction	Unidirectional (receiving only), Bidirectional
Connector pin number	

(2) Table of parallel interface pin numbers and signals

Pin number	Connection signal	Signal direction	Pin number	Connection signal	Signal direction
1	STROBE	To printer ←	19	SG	
2	DATA1	To and from printer ← →	20	SG	
3	DATA2	To and from printer ← →	21	SG	
4	DATA3	To and from printer ← →	22	SG	
5	DATA4	To and from printer ← →	23	SG	
6	DATA5	To and from printer ← →	24	SG	
7	DATA6	To and from printer ← →	25	SG	
8	DATA7	To and from printer ← →	26	SG	
9	DATA8	To and from printer ← →	27	SG	
10	ACK	From printer →	28	SG	
11	BUSY	From printer →	29	SG	
12	P ERROR	From printer →	30	SG	
13	SELECTED	From printer →	31	INIT	To printer ←
14	AUTOFD	To printer ←	32	FAULT	From printer →
15	Not connected		33	Not connected	
16	SG		34	Not connected	
17	FG		35	Not connected	
18	+5V		36	SELECTIN	To printer ←

(3) Recommended Centronics cable specifications

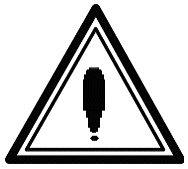
Item	Specifications
Interface	Dual-direction Parallel Interface:IEEE1284
Structure	AWG28×18 (twisted pair wiring)
Shield construction	Metallic tape + weaving (double shielded cable)
Characteristic impedance	62 Ω

8.4.2. Network Interface Specifications

Item	Specifications
NetWork Type	Ethernet IEEE802.3
NetWork I/F	10 Base-T,100 Base-TX(automatic switching) (RJ-45 connector, twisted pair cable, ycategory 5)
Protocol	TCP/IP
Mode	• ftp • lpr • socket
Functions	• Automatic protocol recognition • Transmission speed up to 4 MB/s • Network environment setting by Web.

8.5. INSTALLATION OF OTHER PARTS

When installing parts purchased with your printer, refer to the procedures below.



Caution :

- Before installation, always perform the following.
  - Power OFF the power source.
  - Remove the power source plug from the outlet.
  - Remove all cables connected to the printer.

  Failure to do so could result in damaging the printer or your computer.
  - Touch a metallic section of the product, to remove any static electricity in your body. The electronic components can be damaged from static electricity.
- When installing, do not touch the elements on the circuit board. The elements on the boards can be very hot, and can cause burns.

8.5.1. Installing expansion memory

This product has the following memory installed as standard, but it can be expanded optionally up to 256MB (memory sold separately).

- 50" model :128MB
- 64" model :128MB

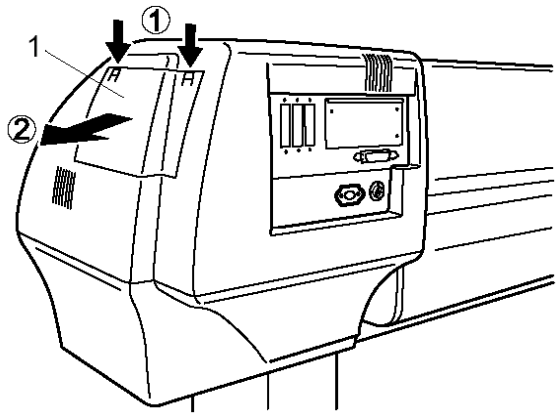
Name	Model
Expansion memory (256 MB)	DIMM 256M

Notes :

- 87" model has been loaded with the standard 256MB memory. Memory expansion exceeding this is not possible.

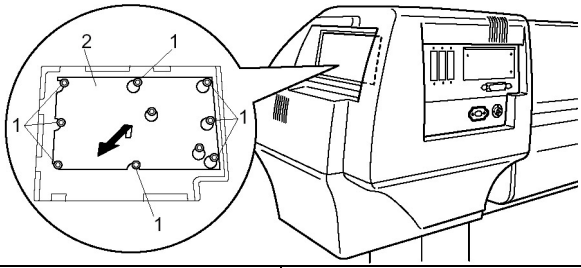
Use the following procedure to install the expansion memory.

Step 1 : Remove the maintenance cover on the side of the printer.



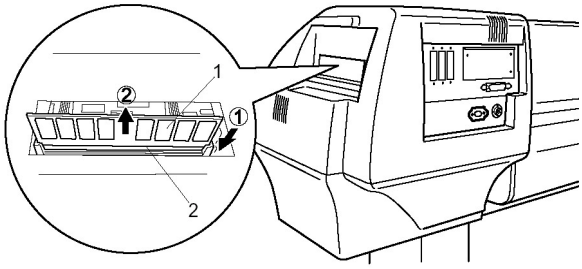
1. Maintenance cover

Step 2 : Loosen the 8 screws inside the maintenance cover. Remove the expansion memory cover.



1. Screws	2. Expansion memory cover

Step 3 : Push the tab on the right side of the memory expansion slot on the board to remove the memory from the board.



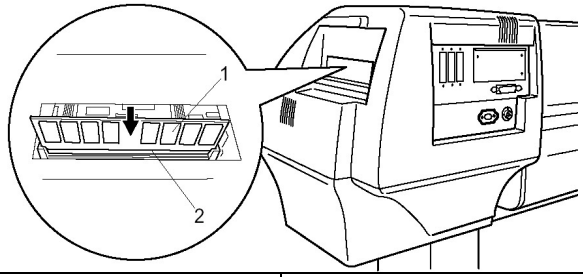
1. Memory	2. Expansion slot

Step 4 : Insert the memory card into the expansion slot, as shown on the figure below.

- Align the notched side of the memory card with the slot.

Notes :

- The expansion slot has a feature to prevent improper insertions. If the expansion slot does not go in, do not force it. This can damage the expansion slot.



1. Expansion slot	2. Expansion memory

Step 5 : Reinstall the maintenance cover.

Step 6 : Connect the disconnected cables.

Notes :

- Refer to "Connecting the power cable" for details on how to install the power source cable.